



U.S. Department of the Interior

Bureau of Land Management



Kemmerer Field Office NOVEMBER 2004

**Issue New Term Permits with the
Smithsfork Allotment Management Plan
Allotment # 21005
Incorporated into the Permit
ENVIRONMENTAL ASSESSMENT
EA. NO. WY 090-EA04-120
And
FONSI**


The Bureau of Land Management is responsible for the balanced management of the public lands and resources and their various values so that they are considered in a combination that would best serve the needs of the American people. Management is based upon the principles of multiple use and sustained yield; a combination of uses that take into account the long-term needs of future generations for renewable and nonrenewable resources. These resources include recreation, range, timber, minerals, watershed, fish and wildlife, wilderness, and natural, scenic, scientific, and cultural values.

**FINDING OF NO SIGNIFICANT IMPACTS
FOR
EA NO. WY090-EA04-120**

DECISION: Proposed Decision

FINDING OF NO SIGNIFICANT IMPACTS:

I have determined that the proposed project is in conformance with the approved land use plan. Based on a review of the EA and the accepted mitigation measures, I find that this action would not have a significant impact on the quality of the human environment and, therefore, conclude that an environmental impact statement is not required.

Field Manager: Mary Jo Rugwell Date November 4, 2004
 (signed)

INTRODUCTION

Smithsfork Allotment Management Plan	
Allotment Number 21005 Smithsfork	EA No.WY090-EA04-120
Proposed Action Title: Allotment Management Plan	
Applicants and Participating Parties: Smithsfork Permittees, Smithsfork CRM Steering Committee, Smithsfork Grazing Association, Interested Publics, State of Wyoming	

I. INTRODUCTION

I.A. PROJECT LOCATION AND DESCRIPTION

The Smithsfork Allotment (see map on page 4) is a 90,937 acre cattle and sheep allotment located north and east of Cokeville, Wyoming. The allotment is composed of approximately 64,725 acres of federal land, 14,627 acres of private land, and 11,585 acres of state land, (see map on page 10).

Both cattle and sheep have historically used the Smithsfork Allotment. During the 1960's and early 1970's, a number of the sheep permits were converted to cattle permits. At the time the allotment was adjudicated, there were 33 separate livestock operations. Through consolidation of operations and conversions in kind of livestock, as well as base property leases, a total of 19 operators are permitted on the allotment at the present time under 24 different permits. Four operators run sheep, one runs both sheep and cattle, and fourteen run cattle.

The Raymond Mountain Wilderness Study Area (WSA) is located in the Sublette Mountain Range (Raymond Mountains) in the western portion of the Smithsfork Allotment. The WSA is approximately nineteen miles in length and four miles wide at its widest point. It contains approximately 32,936 acres. Both cattle and sheep use the WSA. The WSA has diverse vegetation and steep topography. A major portion of the area is forested with Douglas fir, lodgepole pine, and other coniferous trees, as well as aspen. The southern end of the WSA contains stands of big sagebrush and rock outcrops, (see map on page 30).

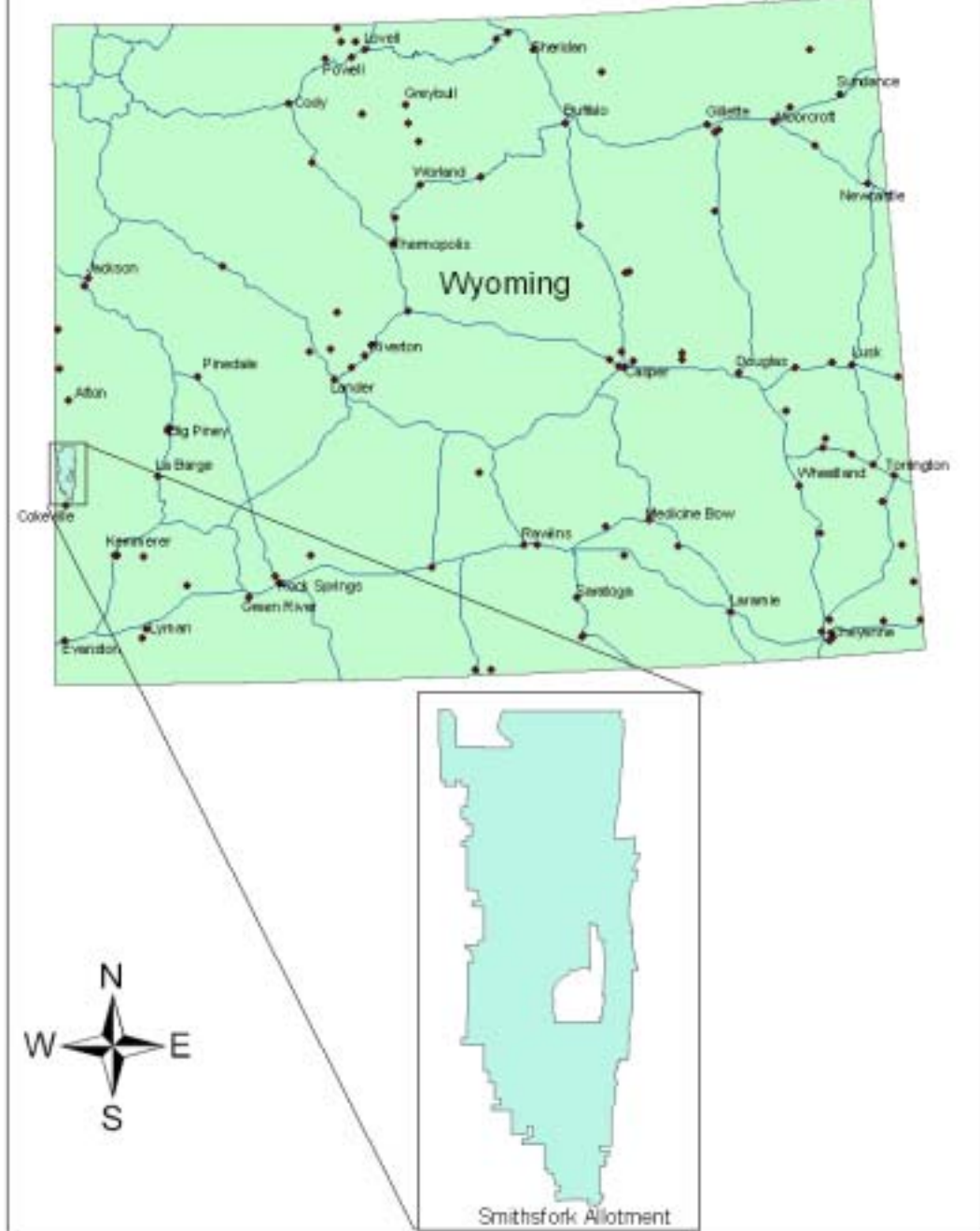
The Raymond Mountain ACEC was designated in 1982. The ACEC was designated to emphasize the management needs of the Bear River (Bonneville) Cutthroat Trout (BCT), which is a BLM sensitive species. The ACEC is approximately 11 miles in length and 4 miles wide at its widest point. It contains approximately 12,660 acres, (see map on page 30).

Several streams are located in the allotment and within the WSA including Raymond Creek, Mill Creek, and Huff Creek. Numerous other streams are located within the allotment outside the WSA, including Coal Creek, Stoner Creek, First Creek, Second Creek, Third Creek, Fourth Creek, Little Muddy Creek, and Muddy Creek.

I.B. PURPOSE AND NEED FOR PROPOSED ACTION

Grazing occurred on the Smithsfork Allotment prior to the Taylor Grazing Act and continues today. Both cattle and sheep graze the allotment. Sheep use the allotment in the spring and fall. Cattle grazed the allotment season long which resulted in a degradation of the riparian areas. Attempts to control and distribute the cattle have been made with minimal success prior to 1996. Since 1996, an interim grazing strategy, consisting of using range riders instead of fences, has been tried with some success for a portion of the authorized use period. It was determined that the development of off site water sources could help in the recovery of the riparian areas. A Final Decision concerning management on the allotment was issued on August 2, 2001. The Final Decision was implemented pending the outcome of the hearing on the formal Appeals filed against the Final Decision. A Motion for Stay request was denied on the Final Decision.

Smithsfork Allotment Location Map



The proposed action is to issue new term permits to each of the permittees with a newly developed Allotment Management Plan (AMP) as a term and condition of the permits.

Coordinated Resource Management Efforts

The Smithsfork Coordinated Resource Management (CRM) process was initiated in the spring of 1995. The initial issues were condensed into the following three major areas. One issue was the lack of range improvements such as water developments, fences, and vegetation manipulation (brush control). Another issue was a lack of livestock control and poor distribution. And finally, another issue was questions about livestock numbers versus capacity.

Wildlife numbers, predators, wildlife depredation on stored hay crops, cutthroat trout populations, and concerns with riparian habitat, stream degradation, and water quality were also identified. Concern with the plant succession in upland plant communities and recreational use of the allotment were also mentioned.

The major management concern on this allotment is the condition of riparian areas associated with streams and upland springs and seeps due to past grazing and other activities, which include chemical spraying of the riparian areas subsequently killing most of the willow populations in the late 60's and early 70's, and numerous sheep to cattle conversions. Under season-long grazing use, and with a lack of upland water sources, cattle tend to concentrate in riparian areas for virtually the entire growing season every year. Proper Functioning Condition Inventory Data indicates that many of the streams are "functioning-at risk" which means the riparian-wetland areas are in functional condition, but some resource attribute makes them susceptible to degradation. Some are in an upward trend and some are in a downward trend. This AMP would provide grazing management practices that should improve riparian vegetation on stream corridors and spring sites on the uplands (see Map on page 10).

The second major concern is the condition of upland plant communities. Some of the upland sites are dominated by stands of old, decadent sagebrush, mountain shrubs, and aspen. In 1968-1970, the BLM initiated a brush control program and treated approximately 21,500 acres (one quarter of the allotment). These treatment areas are now dense stands of sagebrush. Some of these stands are actually denser than adjacent untreated sites. Decades of fire suppression have also contributed to the current dominance of sagebrush in upland plant communities. It was felt a coordinated vegetation manipulation program to treat some of these old stands could be used.

To address these concerns, proposals are being investigated to begin implementation of vegetation manipulation to create a mosaic of different age classes, cover, and vertical structure within these communities. This could improve biologic diversity, wildlife habitat, and watershed function.

An additional concern is that cattle from the Smithsfork Allotment have been trespassing on the Kemmerer Ranger District of the Bridger-Teton National Forest north of the allotment.

1.C. CONFORMANCE WITH LAND USE PLAN

The Thomas Fork Aquatic Habitat Management Plan (AHMP) was written in 1980 to manage habitat for Bonneville Cutthroat Trout. One of the decisions in the AHMP was to write an allotment management plan to manage for improved riparian conditions. The Raymond Mountain Area of Critical Environmental Concern (ACEC) plan was written in 1982 to manage surface disturbing activities. The 1982 ACEC plan incorporates the 1980 Thomas Fork AHMP.

The Kemmerer Resource Management Plan (RMP) published in April 1986, and the Rangeland Program Summary Update, completed September 1990, provides direction for management of the Smithsfork Allotment. The allotment categorization process conducted during the preparation of the Kemmerer RMP categorized the Smithsfork Allotment as an (I) Allotment and ranked it number one for priority. The overall objective for "I" category allotments is to "improve" range conditions. The Kemmerer RMP identified poor livestock distribution, some riparian/wet meadows being overgrazed by livestock, conflicts

between wildlife/watershed and livestock grazing, and accelerated soil erosion as problems on the allotment.

Other decisions in the land use plan were:

- The attainment of Wyoming Game and Fish Department strategic plan population objectives for wildlife would not be jeopardized.
- Riparian areas in the Thomas Fork Drainage would be managed to re-establish riparian/willow vegetation. Stream improvement practices to improve riparian and wetland areas for fisheries habitat would be implemented.
- The Thomas Fork AHMP would continue to be implemented to improve habitat for Bonneville Cutthroat Trout.

The RMP (page 28) indicated that the WSA would be managed in compliance with the Interim Management Policy and that the 1982 Raymond Mountain ACEC plan and Thomas Fork AHMP would continue to be implemented.

I.D. STATUTES, REGULATIONS, AND OTHER PLANS

The proposed action is in conformance with 43 CFR 4120.3 (Range Improvements).

BLM is a partner along with the Wyoming Game and Fish Department and U.S. Forest Service in the Bonneville Cutthroat Trout Management Plan. This plan was developed to cooperatively manage the populations and habitat in the occupied range of the fish and to expand the populations to historically populated streams.

The Endangered Species Act and BLM policy directs BLM to neither support nor implement any decision that could cause a species to be listed as threatened or endangered. The objective of the proposed action is to improve aquatic habitat conditions for the Bonneville Cutthroat Trout.

The proposed project is in conformance with the land use plan for the area within which the proposal would occur, and complies with federal and state regulations and statutes pertaining to, among others, air and water quality, and the National Environmental Policy Act (NEPA).

I.E. SCOPING, CONSULTATION, AND COORDINATION

The proposed action represents a proposal by the BLM, with input from the Smithsfork Coordinated Resource Management Steering Committee and Technical Review Teams, which included the permittees, and interested parties. The BLM has the final decision authority in the development of the AMP. Since the Final Decision issued on August 2, 2001, the BLM has met continually with the Steering Committee, has had several meetings with the planning TRT, had several allotment tours to discuss problems, toured the allotment with several individuals, and conducted yearly monitoring where all of the individuals on the entire mailing list were invited. Any and all correspondence, including all monitoring reports, is sent to the entire mailing list. Draft copies of the AMP were sent to all parties, and comments received were considered in the development of the proposed draft AMP.

In May 2000, as a result of several years of monitoring data the BLM issued a Determination that Standards 2 and 4 were not being met due to livestock grazing practices:

STANDARD # 2: Riparian and wetland vegetation has structural, age, and species diversity characteristic of the stage of channel succession and is resilient and capable of recovering from natural and human disturbance in order to provide forage and cover, capture sediment, dissipate energy, and provide for groundwater recharge.

STANDARD # 4: Rangelands are capable of sustaining viable populations and a diversity of native plant and animal species appropriate to the habitat. Habitats that support or could support

threatened species, endangered species, species of special concern, or sensitive species would be maintained or enhanced.

The BLM must take appropriate action under 43 CFR 4180 upon Determination that one or more of the *Standards for Rangeland Health and Guidelines for Livestock Grazing Management for Public Lands* Administered by the BLM in the State of Wyoming are not being met.

Based on these assessments, in 2000, the BLM interdisciplinary team recommended that at a minimum, the guidelines that need to be addressed in the future management of this allotment include Guidelines 1 through 9 (below). Future permit terms and conditions need to address a reduced amount of hot season grazing that occurs on the same riparian areas at the same time each year, and discontinuation of season long grazing on parts of this allotment. Grazing Management Practices must provide for restoration, maintenance and improvement of riparian plant communities, and maintenance of adequate residual plant cover following grazing. Timing, duration, and levels of authorized grazing must be addressed throughout the allotment to ensure adequate progress towards the standards and allotment objectives. Range Improvements may be utilized to address implementation of grazing management changes to restore, maintain, or enhance habitats to assist in the recovery of sensitive or listed species (either state designated or federally listed).

Guidelines

1. Timing, duration, and levels of authorized grazing would ensure that adequate amounts of vegetative ground cover, including standing plant material and litter, remain after authorized use to support infiltration, maintain soil moisture storage, stabilize soils, allow the release of sufficient water to maintain system function, and to maintain subsurface soil conditions that support permeability rates and other processes appropriate to the site.
2. Grazing management practices would restore, maintain, or improve riparian plant communities.
3. Range improvement practices (instream structures, fences, water troughs, etc.) in and adjacent to riparian areas would ensure that stream channel morphology and functions appropriate to climate and landform are maintained or enhanced.
4. Grazing practices that consider the biotic communities as more than just a forage base would be designed in order to ensure that the appropriate kinds and amounts of soil organisms, plants, and animals to support the hydrologic cycle, nutrient cycle, and energy flow are maintained or enhanced.
5. Continuous season-long or other grazing management practices that hinder the completion of plant's life-sustaining reproductive and/or nutrient cycling processes would be modified to ensure adequate periods of rest at the appropriate times.
6. Grazing management practices and range improvements would adequately protect vegetative cover and physical conditions and maintain, restore, or enhance water quality to meet resource objectives.
7. Grazing management practices would incorporate the kinds and amounts of use that would restore, maintain, or enhance habitats to assist in the recovery of federal threatened and endangered species or the conservation of Federally listed species of concern and other State-designated special status species.
8. Grazing management practices and range improvements would be designed to maintain or promote the physical and biological conditions necessary to sustain native animal populations and plant communities.

9. Grazing management practices on uplands would maintain desired plant communities or facilitate change toward desired plant communities.

II. DESCRIPTION OF THE PROPOSED ACTION AND ALTERNATIVES

II.A. ALTERNATIVE 1: PROPOSED ACTION: THIS IS IN ESSENCE THE “NO ACTION ALTERNATIVE”. IT INCLUDES THE ADDITIONAL ACTION OF THE ISSUANCE OF NEW TERM PERMITS WITH AN AMP LISTED IN THE TERMS AND CONDITIONS. THE AMP HAS A FOUR PASTURE DEFERRED ROTATION SYSTEM WITH COMPREHENSIVE MANAGEMENT ACTIONS, OBJECTIVES, FLEXIBILITY, AND RANGE PROJECTS TO ADDRESS AND BRING ABOUT IMPROVEMENT OF THE ALLOTMENT.

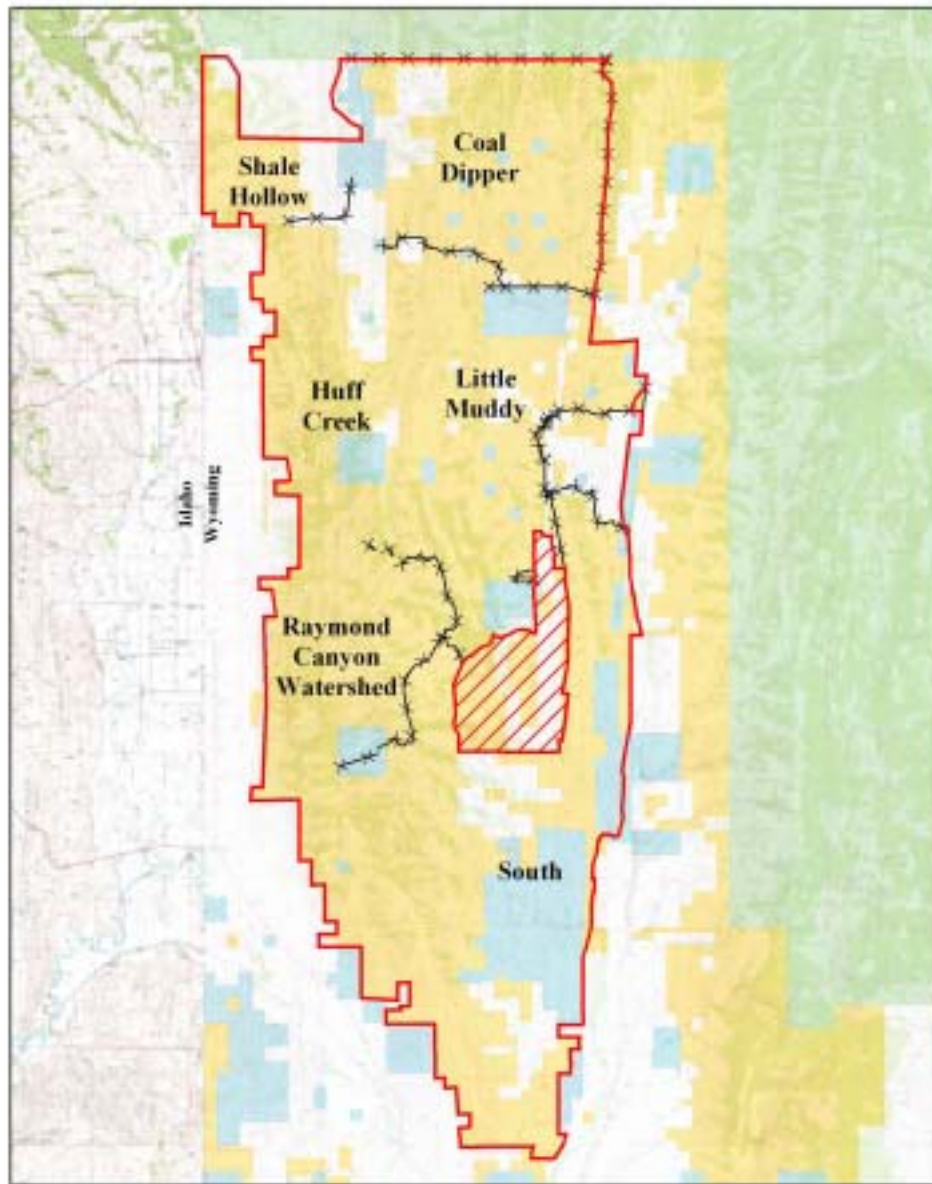
The allotment has been divided into four pastures with a combination of fencing and management. A four pasture, deferred rotation system is being used and is proposed to be continued. This was part of the August 2, 2001 Final Decision (2001FD). Three pastures are fenced separately with one pasture being divided into two use areas by a ridge top and management of livestock, see map on page 10.

YEAR 1	START	MOVE TO	MOVE TO	OFF
	Huff	Coal/Dipper	Little Muddy	South
	5/16 to 6/05	6/06 to 7/05	7/06 to 8/01	8/02 to 9/1
YEAR 2	Coal/Dipper	Huff	South	Little Muddy
	6/01 to 6/30	07/01 to 7/20	7/20 to 8/25	8/26 to 9/15
YEAR 3	Little Muddy	South	Huff	Coal/Dipper
	5/16 to 6/15	6/16 to 7/20	7/21 to 8/05	8/06 to 9/1
YEAR 4	South	Little Muddy	Coal/Dipper	Huff
	5/16 to 6/20	6/21 to 7/15	7/16 to 8/15	8/16 to 9/1

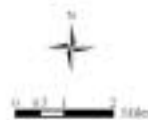
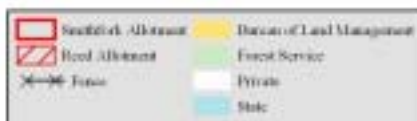
Numbers reflect the numbers listed in the Final Decision of August 2, 2001. Six upland springs have been developed, with three more planned when the drought breaks and the springs again have water. Three to four pits have also been planned. These springs and pits are addressed in the decision notices of past environmental assessments. Riding in the 2004 grazing season appeared to be satisfactory in preventing trespass on National Forest Lands. No further projects are anticipated to be necessary in implementing this system. Additional projects have been proposed to augment the current system.

The chart below lists the permittees on the allotment with their permitted active, suspended, authorized AUMS with the 8% non-use shown for Raymond Canyon, and their Exchange of Use AUMS. Authorized AUMS show the AUMS and numbers on the annual grazing authorizations and bills. The voluntary non-use, 8% based upon survey capacity of the Raymond Canyon Watershed, has been implemented for all authorizations. The BLM recommended the non-use, and the permittees agreed to take voluntary non-use rather than have it decisioned. Based on the non-use, no grazing is authorized in the watershed at the present time. This is to assist in the recovery of the riparian areas in the watershed.

NUMBER	OPERATOR	PERMITTED		AUTHORIZED	
		Permitted AUMS	Suspended AUMS	Federal AUMS	E/U AUMS
4904005	ARGYLE RANCH INC	1156	495	1064	42
4904012	BISCHOFF, ERNEST G.	29	12	27	-0-
4904016	BOEHME RANCH	296	126	272	-0-
4904017	BOEHME, JOHN & SONS	68	27	63	33
4904028	3Y LIVESTOCK LC	775	330	713	560
4904030	BOEHME, GARTH T.	110	45	101	-0-
4904043	HARDESTY, CHARLES	200	84	184	-0-
4904062	JOHNS, ROLAND	141	57	130	70
4904080	HIRSCHI, LaVALL	4	3	4	-0-
4904104	LOERTSCHER, KARMA	469	198	431	15
4904138	ROBERTS, FRED W	1784	765	1641	384
4904192	TEICHERT BROTHERS, LLC	132	54	121	-0-
4904198	MINHONDO RANCH	194	81	178	-0-
4904265	CORNIA, HAL B	131	54	121	-0-
4904276	POPE, EVAN	1689	723	1554	643
4904300	CORNIA, HAL B	186	78	171	-0-
4900048	K-H INVESTMENTS LIMITED	319	135	293	-0-
4900105	ESTERHOLDT, ERICK W	530	222	488	614
4900157	BROOKS, SHANE, lease	57	24	52	224
4900221	ARGYLE RANCH, INC, lease	98	42	90	-0-
4900212	NECKTIE RANCH, LLC, lease	588	266	541	29
4900217	ROBERTS, FRED W	37	8	34	-0-
4900219	ARGYLE RANCH, INC	187	85	172	-0-
4900220	LARSON, GERRY, lease	634	276	584	-0-
	TOTALS	9814	4190		



NO WARRANTY IS MADE BY THE BUREAU OF LAND MANAGEMENT
FOR USE OF THE DATA FOR PURPOSES NOT INTENDED BY BLM.



NOTICE – NOTICE – NOTICE
Due to Federal and State Land Exchanges
or Sales, this map may not accurately reflect
Land Ownership Status.
Please consult the local BLM Field Office or
USFS Ranger District for current updates on
ownership status.

II.B. ALTERNATIVE 2: ISSUE NEW TERM PERMITS WITH AN AMP LISTED IN THE TERMS AND CONDITIONS. THE AMP WOULD HAVE A FOUR PASTURE REST ROTATION SYSTEM.

This alternative would utilize the current fenced three pastures plus additional fencing to create the fourth pasture and assure livestock control. This system would require that one pasture be totally rested each grazing season. An additional 25% reduction in livestock numbers would be required to balance the AUMS with the loss of the rested pasture each year. Three pastures would be used each year in a deferred rotation grazing system. One pasture would receive total rest each year. The rest pasture would have no grazing or lambing authorized for either sheep or cattle. See map on page 10.

The existing four pastures would be maintained, but this system would require an additional ten miles of fencing on the Igo Speedway to fence the Huff Creek pasture from the Little Muddy Pasture. Due to concentrations of cattle, the need to rest one pasture each year, and the additional time the cattle would be in the Coal/Dipper Pasture, the Forest Service Boundary would have to be fenced; this would require an additional 6 miles of fence for a total of 16 additional miles of fence.

	START	MOVE TO	OFF	REST
YEAR 1	Huff	Coal/Dipper	Little Muddy	South
	5/16 to 6/05	6/7 to 8/1	8/2 TO 9/1	rest
YEAR 2	Coal/Dipper	Huff	South	Little Muddy
	6/01 to 7/10	07/10 1 to 8/10	8/11 TO 9/15	rest
YEAR 3	Little Muddy	South	Huff	Coal/Dipper
	5/16 to 6/15	6/16 to 8/1	8/2 TO 9/1	rest
YEAR 4	South	Little Muddy	Coal/Dipper	Huff
	5/16 to 7/1	7/1 TO 7/20	7/21 TO 9/1	rest

Six upland springs have been developed, with three more planned when the drought breaks and the springs again have water. Three to four pits have also been planned. These proposed springs and pits are addressed in the decision notices of past environmental assessments. Additional projects have been proposed to augment the current system.

The private landowners and State Lessees may feel forced to fence out their in-holdings because the reductions, not only to their Federal Permits, but that would also apply to the Exchange of Use credit they receive for their private and State lands. There is a potential for 50 miles of additional fencing around the private and state lands.

The chart below lists the current permittees on the allotment with the 25% reduction reflected on their permitted active, suspended, authorized AUMS with the 8% non-use shown for Raymond Canyon, and their Exchange of Use AUMS. Authorized AUMS show the AUMS and numbers on the annual grazing authorizations and bills. The voluntary non-use, 8% based upon survey capacity of the Raymond Canyon Watershed, has been implemented for all authorizations. The BLM recommended the non-use, and the permittees agreed to take voluntary non-use rather than have it decisioned. Based on the non-use, no grazing is authorized in the watershed at the present time. This is to assist in the recovery of the riparian areas in the watershed.

NUMBER	OPERATOR	PERMITTED		AUTHORIZED	
		Permitted AUMS	Suspended AUMS	Federal AUMS	E/U AUMS
4904005	ARGYLE RANCH INC	876	775	806	39
4904012	BISCHOFF, ERNEST G.	22	19	20	-0-
4904016	BOEHME RANCH	222	200	204	-0-
4904017	BOEHME, JOHN & SONS	51	44	47	30
4904028	3Y LIVESTOCK LC	581	524	534	515
4904030	BOEHME, GARTH T.	83	72	492	-0-
4904043	HARDESTY, CHARLES	150	134	138	-0-
4904062	JOHNS, ROLAND	106	92	98	38
4904080	HIRSCHI, LaVALL	3	4	3	-0-
4904104	LOERTSCHER, KARMA	352	315	324	14
4904138	ROBERTS, FRED W	1338	1211	1231	353
4904192	TEICHERT BROTHERS, LLC	99	87	91	-0-
4904198	MINHONDO RANCH	146	129	134	-0-
4904265	CORNIA, HAL B	98	87	90	-0-
4904276	POPE, EVAN	1267	1145	1165	353
4904300	CORNIA, HAL B	139	125	128	-0-
4900048	K-H INVESTMENTS LIMITED	239	215	220	-0-
4900105	ESTERHOLDT, ERICK W	397	355	365	591
4900157	BROOKS, SHANE, lease	43	38	40	206
4900221	ARGYLE RANCH, INC, lease	74	66	68	-0-
4900212	NECKTIE RANCH, LLC, lease	441	413	406	98
4900217	ROBERTS, FRED W	28	17	26	-0-
4900219	ARGYLE RANCH, INC	140	132	129	-0-
4900220	LARSON, GERRY, lease	475	435	437	-0-
	TOTALS	7370	6634		

II.C. ALTERNATIVE 3: ISSUE NEW TERM PERMITS WITH TERMS AND CONDITIONS THAT WOULD RETURN MANAGEMENT TO THE GRAZING SCENARIO PRIOR TO THE AUGUST 2, 2001 FINAL DECISION.

Under this alternative, livestock grazing would continue to season long grazing and numbers as permitted prior to the August 2, 2001 Final Decision. The existing fences designed to manage the allotment under a rotational grazing system would be removed. The season would be changed back to May 16 to September 30 of each year. No management or rotation would be required for the management of cattle. The assessment of the Standards for Rangeland Health and Guidelines for Management that determined that the Smithsfork Allotment is not meeting Standards and that existing management needs to be modified to ensure progress towards the standards would not be acted upon.

II.D. ALTERNATIVE 4: NO TERM PERMITS WOULD BE ISSUED. NO GRAZING WOULD BE AUTHORIZED ON FEDERAL LANDS INSIDE THE ALLOTMENT.

No Livestock Grazing: This alternative is to completely close the public lands in the allotment to grazing. While the public land AUMS could be suspended indefinitely until resource conditions met objectives and standards for healthy rangeland, the permittees and landowners could still graze State and private lands intermingled with the public lands at their discretion. In order to graze the private and State lands and ensure no unauthorized use of public lands, the lessees and landowners would need to construct approximately 50 miles of fence around the non-federal lands. Such fences would likely not be built to BLM specifications. The amount and type of fences required to graze only the non-federal lands would have an adverse impact on wildlife. The additional fences would be a tremendous hindrance to the movement of wildlife especially in winter. If the non-federal lands were grazed without fences there would be a continuous problem with unauthorized use. Some of the state fences could be in the WSA which could impact the wilderness values.

There could also be an impact to the public land portion of the streams and to water quality if the non-federal lands were improperly managed. The intermingled nature of the private and state lands with the public lands and their associated riparian areas would influence the federal lands through offsite impacts.

III. DESCRIPTION OF AFFECTED ENVIRONMENT

III.A. MANDATORY ELEMENTS

ELEMENTS ** / ALTERNATIVES:	1	2	3	4
Air Quality	n/a*	n/a	n/a	n/a
Environmental Justice	n/a	n/a	n/a	n/a
Farm Lands (prime and unique)	n/a	n/a	n/a	n/a
Flood Plains	n/a	n/a	n/a	n/a
Hazardous Wastes	n/a	n/a	n/a	n/a
Wild and Scenic Rivers	n/a	n/a	n/a	n/a

* n/a (no affect)

** These elements would not be discussed further in this document.

Critical elements of the human environment which could be potentially affected by the proposed action include: water resources/wetlands/riparian, cultural resources, threatened and endangered species, noxious weeds (non-native/invasives), wilderness values, recreation, and water quality. Other resources affected by the proposed action include: authorized livestock use/livestock, fisheries, wildlife, vegetation, geology/soils, and socioeconomics, as described below.

III.B. Description of Affected Environment

1. Introduction and General Description

Elevation on the Smithsfork Allotment ranges from 6,100 feet above sea level near the Bear River Valley bottom to 9,313 feet above sea level at the summit of Raymond Mountain. The topography of the area consists of an upthrust mountainous area (Raymond Mountain) cut by steep canyons on the west side of the allotment to less steep topography to the east. The entire allotment is fairly mountainous and is characterized by relatively steep slopes and deep canyons. The allotment is split roughly in half by natural barriers along an east/west axis beginning at Raymond Canyon and running east to Muddy Ridge. A large portion of the allotment is accessible only by foot travel or horseback, due to the rugged terrain.

Precipitation ranges from ten inches to fourteen inches per year in the lower elevations of the allotment to twenty or more inches in the areas of Raymond Mountain with timber slopes. Most of the precipitation comes in the form of snow with snow depths of three or more feet common later in the winter, with depths of five feet or more in the higher elevations areas. Deep snow drifts are common and avalanches occur on steep slopes especially on Raymond Mountain. Rapid snow melt in the spring can cause a high peak flood flow in any of the streams in the allotment. The area also experiences high intensity thunder storms in the summer that can cause flash floods in the streams.

2. Cultural/Historic Resources

Thirty-nine (39) Class III cultural resource inventories have been conducted on a total of approximately 6480 acres, or 7% of the allotment. Class III Inventories are intensive field inspections of the ground surface for the purpose of locating and recording all archeological resources, particularly cultural or historic materials or sites that may meet eligibility requirements for listing on the National Register of Historic Places (NRHP). Class III inventories are conducted on federal lands by qualified professional archeologists who document all cultural resources by location, description and significance.

The quality of significance of cultural resources is evaluated with consideration of four National Register criteria: a) association with events that have contributed significantly to American history; b) association

with the lives of persons significant in our past; c) representation of distinctive characteristics of a type, period, or method of construction, or work of a master, or that possess high artistic values, or a significant and distinguishable entity whose components may lack individual distinction; and d) ability to yield information important in prehistory or history. Most of the inventoried acres in the Smithsfork Allotment are large block surveys, with others being examinations of 100-foot wide linear corridors.

As a result of this previous inventory coverage, fifteen (15) cultural properties had been documented within the applicable sections. These include eleven (11) historic sites [Oregon Trail (a non-contributing segment located outside the allotment boundary), 3 stockherder camps, 1 canal, 1 cabin, 1 corral, & 4 mines] and four (4) prehistoric sites [3 lithic scatters & 1 camp].

Based on this limited information from the cultural resource management data, there is generally a fairly low potential for future inventories to identify significant National Register eligible sites due to the overall upland setting and commonly steep terrain. In addition, the exposed bedrock surfaces, common throughout the allotment, decrease the likelihood for buried cultural materials and well-preserved sites. However, areas proximal to water sources tend to have a higher potential for the occurrence of cultural resource sites such as prehistoric camps and historic cabins. Also because the area has been used historically for livestock grazing, there is the potential for historic sites related to stock herding to be identified in upland settings.

3. Livestock Management

The Smithsfork Allotment has historically been used by both cattle and sheep. During the 1960's and early 1970's, a number of the sheep permits were converted to cattle permits. At the time the allotment was adjudicated, there were 33 separate livestock operations. Of this total, seven were permitted for sheep only, fourteen for cattle only, and twelve were permitted for both sheep and cattle. A total of 21 operators are permitted on the allotment at the present time. Under the Final Decisions issued on the Allotment in August 2001, the permitted AUMS were reduced from 14,010 AUMS (8865 cattle and 5145 sheep) to 9,831 AUMS: 6,226 cattle AUMS and 3,605 sheep AUMS, effective in 2004.

The federal and unfenced private and state lands in the Smithsfork Allotment were surveyed in 1960-62 to estimate annual forage production and to arrive at livestock carrying capacity adjudication.

The Smithsfork Allotment, Notice of Final Advisory Board Recommendation and Decision of District Manager on Adjudication of Grazing Privileges, was adjudicated on March 30, 1966, for 11,584 livestock AUMS. This amounted to a 38.9% reduction from the recognized Class I demand of 18,945 AUMS. 2,348 AUMS were reserved for wildlife. The adjudication was subsequently appealed by the permittees. By a stipulation and agreement dated August 7, 1967, signed by the District Manager and State Director, the appellants withdrew their appeals. Parties to the agreement did agree to apply for and accept non-use to the extent of 13% of their recognized qualified demand. They also agreed to a three-year sagebrush control-spraying program. In 1968, 1969, and 1970, a total of 21,222 acres of Federal, State and private lands were sprayed. On November 10, 1970, the Kemmerer Resource Area Manager evaluated the spraying program and as a result, restored the amount of the 13% voluntary non-use mentioned above, to approximately 14,000 AUMS of federal preference.

The West Smithsfork Grazing Association was formed by the permittees in the 1950s in an effort to cooperate in the management of the allotment. This Association was in effect until the 1970s, at which time it became an informal organization. In the spring of 1999, the permittees reorganized the Grazing Association into the Smithsfork Grazing Association, which is formally chartered with the State of Wyoming. The purpose of the Association is to help facilitate management on the allotment, provide the permittees more consistency in the management of their livestock, and allow a more stable working relationship with the BLM.

Prior to formation of the Smithsfork Coordinated Resource Management (CRM) Steering Committee in 1995, there was an informal grazing system employed on the north end as a result of the Thomas Fork AHMP. The informal system consisted of deferment of the Huff Creek watershed until after August 1st of each year. A rider was utilized on the north end to control livestock. Construction of the Huff Creek and

Coal Creek exclosures was completed in 1980, and the Little Muddy exclosure was built in 1982. The exclosures were maintained until approximately 1992. Riding continued to be the primary method for livestock control during the 1995-2000 grazing seasons.

The Little Muddy exclosure was rebuilt with new materials in 1997. The Huff Creek exclosure was rebuilt with new materials in 1999. The Coal Creek exclosure was reconstructed in October 2000. The BLM assumed maintenance responsibility on the exclosure fences. Since the establishment of the CRM in 1995, changes in management were employed under Annual Authorizations or Annual Operating Plans (AOP). Various deferred rotation systems using natural barriers and herding were attempted between 1995 and 2000.

In 1995 and 1996, the permittees proposed a rotation using herding in lieu of pasture fencing as an alternative to season-long grazing. The operators attempted to rotate their individual cattle herds according to the rotation schedule, but livestock control was very difficult. This system did not improve grazing distribution or resource conditions significantly.

In 1997, a high-intensity, short-duration system using riders was implemented under an AOP. Each operator had assigned use areas, move dates and utilization criteria. Voluntary non-use was taken to provide rest in Raymond Canyon. Again, this system did not produce the desired results due to the lack of pasture fencing and difficulty in controlling cattle by herding alone.

The 1998 AOP proposed two separate grazing rotations; one for the north half and one for the south half of the allotment. The north and south units each had four use areas in which cattle were to be rotated in a deferred grazing system. Spring/fall sheep use was also coordinated with the cattle rotation. Some electric fencing and four full time riders were used to implement these rotations. Some success was noted in lowering utilization levels, achieving better grazing distribution and increasing residual stubble heights along riparian greenlines.

In 1999, the AOP essentially continued the 1998 grazing plan, which resulted in improvement in resource conditions on portions of the allotment, especially Raymond Canyon. However, cattle control without pasture fences continued to be inadequate. This grazing plan proposed seven pastures for rotating two separate cattle herds in the north and the south. Successful implementation of these rotations would have required 20+ miles of pasture fencing. A much simpler grazing system involving fewer pastures and perhaps a single cattle herd was proposed after the grazing season by the Association.

In 2000, a two-pasture deferred system with one herd of cattle and individual use areas for sheep was attempted. Initially, cattle were distributed to the South Pasture from late May through Mid-July. Without fencing barriers, some cattle made their way into the North Pasture early, especially in the Little Muddy drainage. Four riders were assigned to keep cattle in the authorized use areas.

Complications with the riders occurred immediately including injuries, scheduling, cattle placement, and communication problems. When the pasture move was scheduled to the North Pasture, the majority of the cattle made the move; however there continued to be drift and strays throughout the summer in the South Pasture. Raymond Canyon was used heavily due to inadequate control of livestock in the canyon. The result after one year albeit during drought conditions, was that utilization standards were exceeded in most of the stream bank riparian corridors for some or a large portion of each of the streams in the allotment. Re-growth did occur to adequate levels where livestock were successfully herded or kept out of the creeks after the initial pasture moves. However, even where this success was observed early, it was compromised later in the season due to drift of livestock back into those areas, utilizing that critical re-growth.

Approximately 11,500 AUMS of Active Use of the 14,010 AUMS of Active Preference were licensed between 1995 and 2000, with at least ten percent voluntary non-use taken by the permittees in 1997-1999 to compensate for the prescribed rest of the Raymond Canyon watershed. Additional riders were added in 1997-1999 to assist in the control of the livestock. This equates to an average of 8% non-use which was taken annually on the remainder of the allotment.

Those efforts demonstrated that riding alone would not be successful in the long term. Additional pasture and boundary fences and water developments were needed and planned for construction on the allotment and are covered in existing environmental documents. Some pasture and boundary fences and spring developments were subsequently constructed on the allotment. With the addition of these facilities, and additional riders, some improvement in livestock control occurred. However, it was apparent that completion of more of the planned permanent range improvements, along with changes to the management prescriptions and stocking levels, would be necessary to fully implement any long-term grazing system.

On August 2, 2001, the Kemmerer Field Office issued a Final Decision (FD) reducing the capacity of the allotment by 30% over four years. The 14,010 AUMS of active preference was reduced by Final Decision to 9,814 AUMS: 6209 Cattle AUMS and 3605 Sheep AUMS. These numbers are the numbers listed as permitted AUMS for March 1, 2005. The FD also specified the development of this Final AMP by the start of the 2005 grazing season. The AUMS that were reduced and no longer authorized are listed on the new permits as Suspended AUMS. The additional water developments and fences essential to fully implement a long-term grazing system were also completed.

4. Fisheries

Streams in this area contain the Bonneville cutthroat trout, a BLM sensitive species, which was petitioned for listing as a Threatened and Endangered Species with the United States Fish and Wildlife Service (USFWS). These waters contain pure strains of the species. Other fish species in these streams are: mottled sculpin, long-nosed dace, mountain sucker, leather side chub, and Bonneville red side shiner. The leatherside chub is also a species of concern due to low numbers and poor habitat conditions, (see map on page 17).

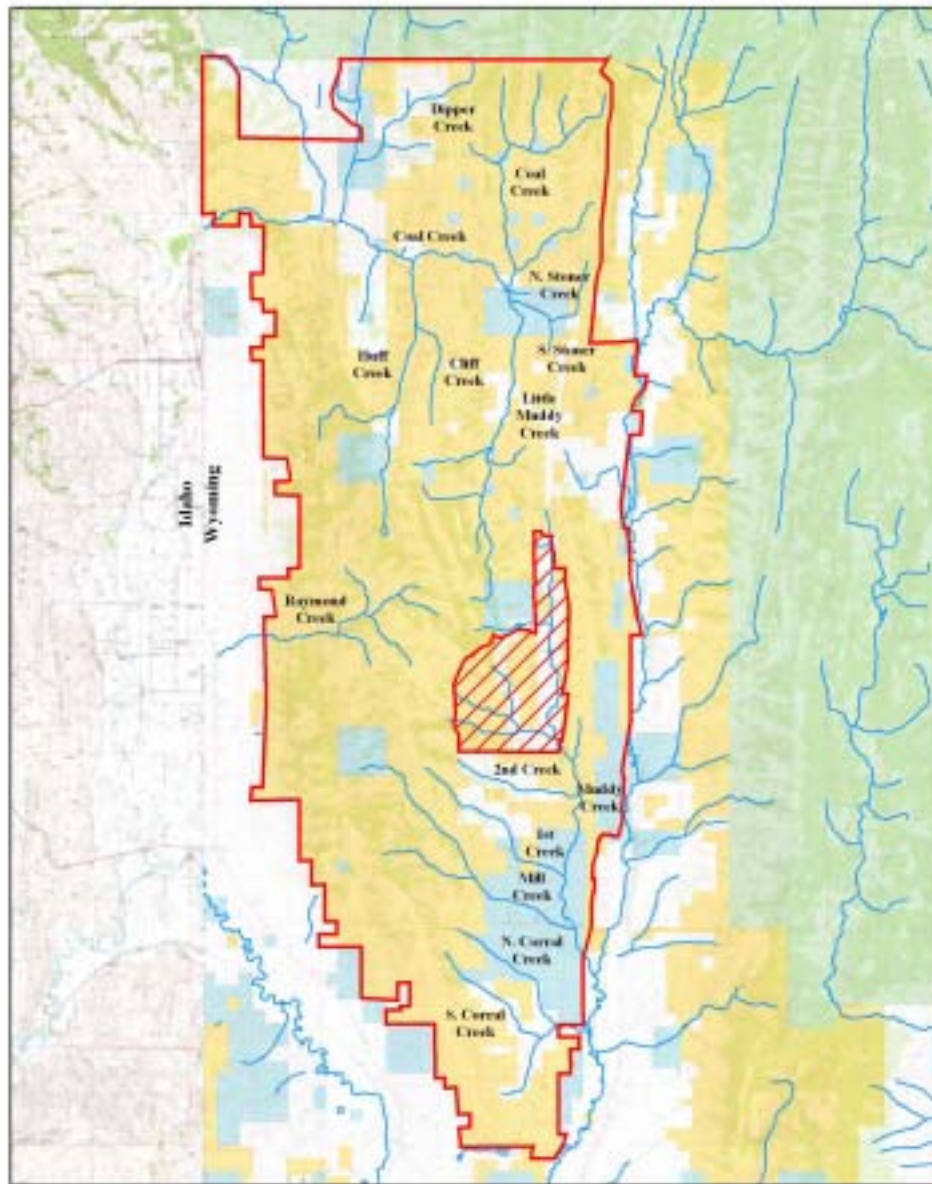
The Thomas Fork drainage and the Raymond Creek drainage are occupied by Bonneville cutthroat trout. Historic records indicate the Bonneville cutthroat trout was found in the Mill Creek and Muddy Creek drainages as late as 1979, therefore all streams on the allotment are considered potential habitat for this species. Current BLM policy requires land management to be carried out in a manner to prevent possible listing of this species.

The Raymond Mountain ACEC was designated in 1982. The ACEC was designated to amplify the management needs of the Bear River Cutthroat Trout, which is a BLM sensitive species. The ACEC is approximately 11 miles in length and 4 miles wide at its widest point. It contains approximately 12,660 acres, (see map on page 31).

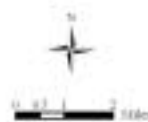
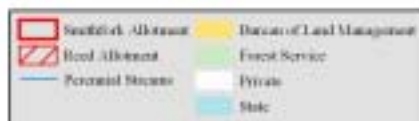
In 1978 a petition to list the Bear River cutthroat trout (since reclassified as Bonneville cutthroat trout) was filed. The fish was not listed but became a candidate species. As a result of that listing petition BLM and the Wyoming Game and Fish Department developed the Thomas Fork AHMP in 1979. As part of the AHMP several exclosures were constructed.

Construction of the Huff Creek and Coal Creek exclosures was completed in 1980. These exclosures were constructed to protect instream fisheries habitat structures and were intended to assure the survival of the cutthroat populations. The Huff Creek exclosure was rebuilt in 1999 with new wire, new bracing and addition of wood posts where steel posts were sinking into the ground. The Coal Creek exclosure has also been totally reconstructed.

The Little Muddy exclosures were built in 1982. Four exclosures were constructed for a rest rotation riparian grazing study. Each exclosure was fenced into pastures that were to be used at different times and at different use levels. The study was not completed and the fences were maintained and used as livestock exclosures from about 1982 until about 1990. The four Little Muddy exclosures were maintained in 1997. Most gates into the various pastures were permanently closed off and corner and brace posts replacements where needed. Several fence lines were re-routed and stream crossings reconstructed to make the fences livestock proof and easier to maintain.



NO WARRANTY IS MADE BY THE BUREAU OF LAND MANAGEMENT
FOR USE OF THE DATA FOR PURPOSES NOT INTENDED BY BLM.



NOTICE – NOTICE – NOTICE
Due to Federal and State Land Exchanges
or Sales, this map may not accurately reflect
Land Ownership Status.
Please consult the local BLM Field Office or
USFS Ranger District for current updates on
ownership status.

Wyoming Game and Fish, BLM and US Forest Service are cooperating on the implementation of existing management plans for the cutthroat trout. The proposed actions in this allotment plan are consistent with the interagency plans. The University of Wyoming has a study in progress that would help determine the habitat requirements of this fish and would help in determining the future conditions that would need to be achieved to support a viable fish population.

5. Geology/Soils

Soil depth is highly variable, ranging from very shallow (less than 10" deep) on ridge tops, such as Raymond Mountain, shallow (10-20" deep); moderately deep (20-40" deep) on steep side slopes; and very deep (greater than 60" deep) within most of the major drainages. The predominate soil forming factors of effective precipitation, topography, and geologic parent materials provide a myriad of soil textures and weathering depths.

The Smithsfork Allotment is located in the Wyoming Overthrust Belt, an area in which thrust faulting in late Mesozoic and early Cenozoic time was followed by a period of high-angle faulting. The north-south trending Crawford Thrust Fault is exposed at the surface in the southeastern portion of the allotment. Movement on this thrust, followed later by movement on the high-angle Cokeville fault which trends north-south along the western border of the allotment, resulted in the uplift of the Sublette anticline and the resultant steep topography within the allotment. Late Paleozoic and Mesozoic sedimentary formations, which strike basically north-south and are steeply dipping, underlie most of the allotment.

Within the allotment, erosion of numerous steep slopes underlain by a wide variety of sedimentary rock units has produced colluvium deposits (unconsolidated rock debris, sand, and soil transported mainly by gravity) in several areas. Large areas of colluvium are concentrated on the south and west sides of the allotment between Highway 30 and the steeper slopes of the Sublette Range, with smaller areas along drainages such as Huff Creek. In general, there are several areas with high potential for landslides along Raymond Creek, Huff Creek, and Little Muddy Creek (Map 4). Coal Creek drains areas of highly unstable geologic materials which are subject to large slumps and slides.

The formations in the allotment trend generally north-south, and thus the bedrock lithologies change rapidly along east-west traverses within the allotment. Sandstone, shale, siltstone, quartzite, claystone, conglomerate, coal, bentonite, and limestone are examples of the variety of sedimentary units within the surface formations, the erosion of which may produce surficial materials subject to later mass movement. Many of the underlying beds are folded into synclines and anticlines, with resulting steep dips. The interaction of those dipping beds with surface slopes can produce situations conducive to Rock slides along bedding planes. In general, the complexity of the geology in the allotment results in numerous opportunities for erosional features (slopewash, alluvial fans, talus slopes, etc.) to occur.

There is no soil survey available for this allotment, therefore, no quantitative analysis can be made for soils in this area. However, some inference may be derived from possibly similar soils in the Star Valley area to the north which does have a soil survey (Star Valley Area Wyoming-Idaho, USDA-1976).

Forested mountain slopes of 30-70% may be characterized by brown and red very gravelly silty clay loam soils greater than 40 inches to bedrock and red silt loam over silty clay and clay soils deeper than 40 inches. These soils have a high water erosion potential when the vegetation is removed as a result of slope and silt content. Vegetation may include Douglas fir, lodgepole pine, snowberry, aspen, and pine grass.

Ridges and upper slopes may be dominated by brown cobbly silty clay loam soils over hard limestone bedrock between 10 and 40 inches. Vegetation may include big sagebrush, serviceberry, snowberry, Kentucky bluegrass, and mountain brome.

Upper slopes of 30-60% may include brown and red gravelly loam over very gravelly loamy sand and/or very gravelly clay loam soils intermingled with loam over silty clay loam soils deeper than 40 inches to bedrock. These soils have a moderate to high water erosion potential when the vegetation is removed as a result of slope and silt content. Vegetation may include big sagebrush, serviceberry, Kentucky bluegrass,

and basin wild rye.

Lower slopes of 10-30% may include brown silt loam over silty clay loam and/or gravelly loam over very gravelly loamy sand soils deeper than 60 inches to bedrock. These soils have a moderate water erosion potential when the vegetation is removed as a result of slope and silt content. Vegetation may include big sagebrush, serviceberry, aspen, lodgepole pine, snowberry, Kentucky bluegrass, bluebunch wheatgrass, pinegrass, and thickspike wheatgrass.

Interspersed with these soils are rock outcrops and soils with bedrock less than 20 inches from the surface.

6. Nonnative Or Invasive Species

Canadian thistle occurs on many of the cut banks in streams and other meadows. Musk thistle and hounds tongue occur in valley bottom stream terraces and snow bank areas. Dalmatian toadflax and Dyerswoad occur in the uplands. The heaviest infestation of Dyerswoad occurs on the west slope of Raymond Mountain. An infestation of Dyerswoad has been located along the roadway leading to and at Huff Lake. Dalmatian toadflax and black henbane are lightly scattered along the riparian zones in Raymond canyon. Black henbane is also found in road ditches and other disturbed areas. Other noxious weeds, such as knapweed, occasionally occur in other disturbed areas. A complete inventory of noxious weeds has not been completed. Annual weed control efforts utilizing various methods are ongoing through cooperative efforts between Lincoln County Weed and Pest District and the BLM.

7. Recreation

The major recreational activity is big game hunting during the months of August through October. Other recreational activities are cross-country skiing, snowmobiling, fishing, sightseeing, four-wheel ATVs, bird-watching, casual target shooting, photography, and antler hunting (deer and elk antlers). Outfitting and guiding requires a Special Use Permit. The remainder of the recreational activities is dispersed casual use.

8. Socioeconomics

The allotment provides over 8.5 percent of the livestock forage production within the Kemmerer Field Office (Kemmerer RMP DEIS, Appendix A-7). This area thus contributes substantially to the agricultural sector income and expenditures for Lincoln County, Wyoming; Bear Lake County, Idaho; and Rich and Box Elder Counties in Utah. The allotment provides a significant portion of the annual forage base for 19 family owned ranches. The allotment amounts to over 6% of the resource area and provides open landscapes for a multitude of outdoor recreational activities with associated incomes related to recreational activities.

9. Threatened, Endangered And Sensitive Species

Canada lynx: The Fish and Wildlife Service, in accordance with section 7(c) of the Endangered Species Act (ESA) of 1973, as amended, listed the Canada lynx as a threatened species. In Wyoming, the Canada lynx generally lives in subalpine/coniferous forests of mixed age and structural classes. Mature forests with downed logs and windfalls provide cover for denning sites, escape, and protection from severe weather. Early successional forest stages provide habitat for the lynx's primary prey, the snowshoe hare. The home range of a lynx can be five to ninety-four square miles. They are capable of moving long distances in search of food. Travel habitat has been considered as trees with seventy percent canopy closure extending four feet or more above the average winter snow depths. However, a radio-collared lynx was recorded inhabiting (most likely hunting and traveling through) sagebrush habitat on numerous occasions about thirty miles northeast of the project area. Sagebrush habitat is abundant throughout the north quarter and east half of the allotment. In the southern portion of their range, which includes this area, at least ten square miles of suitable habitat is considered necessary for occupation by lynx. There is an estimated maximum of 2,500 acres of highly fragmented, potentially suitable habitat. The area is isolated from more contiguous habitat by four to six miles or more of very open grassland/sagebrush habitat considered a barrier to normal lynx movement other than long distance dispersal. As a result, there are no

Lynx Analysis Units (LAU's) recommended for management on the allotment and lynx are not considered present or using the allotment for anything other than transient use in dispersal.

Gray wolf: The gray wolf (listed as experimental non-essential population in this area) has potential to use habitat on the allotment, as they are a wide-ranging species utilizing big game as principle forage with occasional livestock depredation. Recently, two wolves have been reported preying on cattle calves about 10 miles east of the allotment in more contiguous conifer habitat. However, no gray wolves are known or suspected to occur on the allotment. At present, gray wolf would only be expected to be an occasional summer visitor because of limited summer big game populations. Because of wintering big game herds on portions of the allotment, wolves would have a higher likelihood of inhabiting the allotment in the winter months. No losses of livestock to wolves have been reported on the allotment.

Northern bald eagle: One northern bald eagle (listed as "threatened") nest site is located on private land near the Smiths Fork River along the eastern edge of the allotment with active nesting observed in 2003. Lakes or streams on the allotment that are capable of supporting adequate fisheries for bald eagle foraging (such as the Smiths Fork River) are restricted to Salt Creek running across the north end of the allotment along US Highway 89. Northern bald eagles are found on the allotment throughout the winter, foraging for carrion throughout the winter. No winter roost sites are known or suspected to occur on the allotment.

Grizzly Bear: The grizzly bear is currently listed as "threatened" under the ESA. The allotment is within the Wyoming Grizzly Bear Management Plan (February, 2002) proposed outer boundary for grizzly bear occupancy by natural dispersal, but is outside the recover zone/primary conservation area. The allotment is within a portion of the Wyoming Range that may be managed for low grizzly bear densities if it is ever delisted. Grizzly's are known to seek domestic sheep as prey where they co-mingle but cattle seen to be less likely to be preyed upon. The grizzly bear is not known or suspected to occur on the allotment. Potential conifer woodland habitat is very limited and the area is isolated from more contiguous habitat by four to six miles or more of very open grassland/sagebrush habitat. It is unlikely that grizzly bear will ever occupy habitat on the Smithsfork allotment although it could be an occasional migrant sometime in the future.

Black-footed ferret: The black-footed ferret, an endangered species, is dependent upon prairie dogs for ninety percent of their diet; therefore, their natural habitat coincides with most species of prairie dog. No prairie dog colonies (black-footed ferret habitat) are known or suspected to occur on the allotment.

Ute ladies'-tresses: Ute ladies'-tresses, a threatened species, have been surveyed for but were not found in this area most likely due to elevations being over 6800 feet, close to the 7000 foot upper limit generally considered for this species.

Yellow billed cuckoo: This candidate species occupies cottonwood dominated riparian habitat. No such conditions exist on the allotment nor were they ever likely to have been present. The yellow billed cuckoo and its habitat are absent from the allotment.

No other federally listed species or their habitat are present or would potentially occur in this area.

Bonneville cutthroat trout: Streams in this area are home to the Bonneville cutthroat trout, a BLM sensitive species that had been petitioned for listing as a threatened or endangered species with the U.S. Fish and Wildlife Service. The Raymond Creek drainage and Huff Creek contain a genetically pure strain of the species. The decision not to list was made in October of 2001.

Mountain plover: The mountain plover is currently listed as a BLM sensitive species. The habitat for mountain plover is low growing vegetation in flat to gently rolling terrain. This habitat type is very limited in the area of the proposed action. Only the open wind swept ridges would provide this kind of habitat within the allotment. No suitable mountain plover habitat has been found on the allotment at this time.

Greater Sage Grouse: There are four known greater sage-grouse strutting grounds (leks) on the east side of the allotment (three on Federal land and one on State land). There are three additional leks within two

miles of the allotment which have a high associated potential for nesting habitat on the allotment. As a result, virtually the entire southern portion of the allotment containing suitable sagebrush densities is potential nesting habitat. Optimum nesting habitat consists of stands containing sagebrush 16 to 32 inches tall with a canopy cover ranging from 15 to 25 percent with an understory of at least 15 percent grass and 10 percent forb canopy cover. Optimum brood rearing habitat is associated with insects in and adjacent to riparian areas which occur throughout the allotment. In the winter, all southern exposures in the southern half of the allotment containing taller sagebrush stands with 10 to 30 percent canopy cover, usually have sagebrush exposed above the snow and are potential sage grouse wintering habitat. Numerous sage grouse have been observed on the allotment in past several years including 2004, attesting to the success of nesting and wintering on the allotment, (see map on page 27).

Pigmy Rabbit: The pigmy rabbit, a BLM sensitive species, has potential to occur on the allotment. Pigmy rabbit habitat consists of relatively taller and denser big sagebrush on deeper soil areas. Height of the sagebrush can vary from about 1 ½ to 7 feet with densities commonly so dense that it is difficult to walk through (often meaning greater than 30% cover). Other shrub species may be present. These conditions are often found in alluvial fans, swales and large flat valleys, and along creek and drainage bottoms, but not on steep ground. These conditions are present in several locations on the allotment, especially associated with the sagebrush bottoms near the perennial streams. No surveys for this species have been conducted, but it is suspected that it is present on the allotment.

Long-eared myotis: Long-eared myotis, a BLM sensitive species, is a cave and mine dwelling bat that forages in coniferous and deciduous forest habitats has potential to occur on the west side of the allotment associated with some old mine addits in that area. No surveys for this species have been conducted, but it is assumed to be present on west side of the allotment.

Idaho pocket gopher: Idaho pocket gopher, a BLM sensitive species, has potential to occur on the allotment associated with shallow stony soils. No surveys for this species have been conducted, but it is assumed to be present where correct conditions occur on the allotment.

Northern goshawk: Northern goshawk, a BLM sensitive species, has potential to occur on the allotment associated with coniferous forest habitats. Nesting frequently occurs in very dense conifer stands often considered to in a stagnated condition with foraging throughout coniferous habitat. Prey consists of birds and small mammals with the former making up slightly more of the diet. These conditions occur on the western and northern portions of the allotment. This species has not been documented, but it is assumed to be present where correct conditions occur on the allotment.

Ferruginous hawk: The ferruginous hawk is a BLM sensitive species and has potential to occur on the allotment associated with open country habitats. Nesting frequently occurs in a tree with a commanding view. Prey consists mostly of small mammals. These conditions occur on much of the non-forested portions of the allotment. This species has not been found on the allotment, but it may be present where correct conditions occur.

Burrowing owl: The burrowing owl is a BLM sensitive species with a low potential to occur on the allotment associated with animal burrows in open shrub habitat. Nesting is most frequently associated with prairie dog colonies with relatively open habitats and good visibility from the nest burrows mound. No prairie dogs have been found on the allotment and most animal burrows occur in fairly dense sagebrush habitat with poor visibility. Nesting in more isolated burrows is possible, but it is unlikely that burrowing owls occupy the Smithfork allotment.

Sagebrush Obligate Species: Sage thrasher, loggerhead shrike, Brewer's sparrow, and sage sparrow, all BLM sensitive species, have potential to occur on the allotment. These species have not been recorded on the allotment, but are all basin-prairie shrub and/or mountain-foothill shrub habitat obligate species. These conditions occur on a substantial portion of the allotment and it is assumed that all of these species may be present on the allotment.

No other BLM sensitive mammal or bird species are known or suspected to occur on the allotment.

9. Vegetation

The vegetation in this allotment is dominated by mountain big sagebrush communities comprised of a big sagebrush overstory and an understory of native perennial grasses and forbs. These big sagebrush communities usually occur on the deeper, well-drained soils of the valleys and ridges. Communities of alkali sagebrush are found in areas on the shallower, heavy clay soils, and on the more alkaline soils. Serviceberry, snowberry, antelope bitterbrush, and other shrubs occur at the higher elevations and in snow bank areas. Aspen groves and stands of coniferous trees are found mainly at higher elevations and on north and east facing slopes, or wherever there is enough effective precipitation to support these communities. Aspen communities, primarily in the Raymond Mountain area, have been described as old and decadent with sagebrush and conifer invasion reducing the amount of regeneration. However, most aspen communities throughout the allotment are showing good regeneration of the aspen with little indication that the stands will be lost due to decadence. On the very steep slopes with shallow soils, mountain mahogany, juniper, and other mountain shrub types occur.

Riparian shrub communities consisting of water birch, rose, and other shrubs are found along several of the perennial creeks along the west side of Raymond Mountain, while wet meadow types occur along most of the major drainages throughout the allotment, as well as in areas of springs or seeps.

The vegetation in the project area is typical of localized riparian areas associated with springs. Sedges, tufted hair grass, and willows dominate these small areas.

Approximately 22,000 acres of sagebrush control projects using 2,4-D herbicide were completed during the period from 1968 thru 1970. Willows on the streams in the sprayed areas were also killed as a result of the projects. The sagebrush has reestablished in the treated areas and the sprayed areas are no longer obvious. The willows have not recovered in any of the sprayed areas. Presently willows are mostly either remnant populations, or are highly suppressed single plants.

In 1981, Landsat satellite imagery and computer enhancement was utilized to characterize the vegetation community types within the Kemmerer Field Office. Data has not been verified through field inventory techniques, and is considered only an approximation of the cover types of the allotment due to inherent limitations in defining small or low density cover areas. The general land cover types within the allotment are listed in Table 2.

Table 2. Major Land Cover Types by Landsat (1981)

Cover Type	Acres
Juniper	110
Sagebrush	50,788
Sagebrush/Juniper	1,155
Riparian/Cropland	5,988
Aspen	14,965
Barren	78
Cottonwood/Willow	1,860
Mountain Shrub	3,474
Coniferous Forest	1,790
Low Density Shrub	1,272
Grass/Shrubland	9,457
Total Acres	90,937

Acres shown in this table are approximate. The barren classification is defined as disturbed areas, rock outcrops, badlands, sand dunes, and areas with low density vegetation.

Sagebrush spraying was done in 1968, 1969, and 1970. The spraying was done with 2,4-D from planes and helicopters. The placement of the spray was not a concern at that time and much of the riparian vegetation was sprayed and willows were killed in all the areas sprayed. At the present there is a general lack of willow plants as a component of the riparian vegetation. Willows are beginning to return in the areas where there is a seed source. The upper reaches of Coal Creek, the reach of Coal Creek around the confluence of the East Fork of Coal Creek, lower Coal Creek, and Huff Creek have willows in the riparian community but they are sparsely spaced and low growing so they are susceptible to grazing use.

10. Water Quality

The entire allotment drains into the Bear River system. Numerous springs and seeps are found in the headwaters of the drainages and contribute significantly to the stream flows, (see map on page 17).

The drainages have not been listed on Wyoming DEQ 303d lists as being impaired but local interests have expressed a concern about the amount of sediment that is carried out of the watersheds during spring flood flows.

Water pollution sources in the Smithsfork Allotment are non-point in nature and the main concerns are sediment loading and water temperature. Sediment loading is related to geology, soils, and stream conditions. Although some sediment production and movement is a natural function of stream dynamics, these processes are balanced by other processes that slow the transport of sediment by trapping it in vegetation and building stream banks. Streams that have not obtained the minimum acceptable level of PFC tend to produce levels of sediment in excess of what can be retained. This results in reduced riparian size and vigor, which in turn, results in lower forage production and reduced late season flows, as well as increasing down stream maintenance costs. Water quality problems within the allotment are related to stream conditions. Many of the stream reaches within the Smithsfork Allotment are in less than the minimally acceptable condition of PFC.

Water temperature is of prime concern as several of the creeks within the allotment are considered habitat for the Bonneville Cutthroat Trout (BCT), which require cool water temperatures and are discussed under the Fisheries portion of this document. Improving stream conditions would address this concern by increasing stream cover and soil/water contact, both of which would reduce solar gain and buffer temperature fluctuations.

The Smith and Thomas Forks of the Bear River, and some of their tributaries, are listed on the Department of Environmental Quality's 1998 report on the 303(d) list in Appendix E of the DEQ report, which indicates further monitoring is required and credible data is necessary to determine the level of impairment.

The April 2000 Wyoming 303(d) List from DEQ does not identify any of the streams in the Smithsfork Allotment as being impaired.

Specific water quality information was obtained from a report prepared by the Wyoming Department of Environmental Quality (DEQ) published in 1998. It is available on their website. This report also identifies the beneficial uses for each stream.

The following are excerpts from the DEQ 1998 report:

Raymond Canyon drainage (includes the North and South Forks of Raymond Creek): Un-assessed.

Smithsfork/Muddy Creek drainage: Monitoring data show dissolved oxygen levels below 8mg/l in June of 1993, 1994, 1995, and 1996 at the Bear River station below the Smithsfork (outside of the allotment). Historic evaluations provide conflicting information, either indicating concerns with silt, sediment and flow alteration, or no concerns. The approximately 242 perennial reach miles in this drainage are evaluated as fully supporting all designated beneficial uses.

Salt Creek drainage (includes Coal Creek): Coal Creek drains areas of highly unstable geologic materials which are subject to large slumps and slides. In many parts of the drainage, these slumps and slides have

been large enough to move the stream channel. The result is that Coal Creek is flowing past or through large areas of unconsolidated flow and slump material and transporting those sediments downstream and into Idaho. Coal Creek contains a series of debris flow complexes. The approximately 60 perennial reach miles are reported as fully supporting all designated beneficial uses.

11. Water Resources/Wetland/Riparian

The Kemmerer RMP identified several small areas of drainage bottoms (riparian/wetland areas) as being over-utilized due to poor livestock distribution patterns. Monitoring done subsequent to publication of the RMP has confirmed these livestock management problems. (Monitoring data is available for review at the Kemmerer Field Office).

The spring projects are within the Coal Creek and Stoner Creek drainages, which are part of the Thomas Fork drainage and the Third Creek drainage of Muddy Creek, which is part of the Smithsfork River drainages. The Thomas Fork drainage riparian area is primarily sedge community with limited willow components, but the potential is for extensive willow communities.

A survey to determine the Proper Functioning Condition of the riparian areas was completed in the late 1990's on the allotment. The results of the survey are compiled in the following table. Numbers are in miles of stream, (see map on page 26).

Functioning Condition Summary by Stream in Miles

Watershed	Stream	RATING (by public land miles)				
		PFC	FUNCTIONAL AT RISK			NF
			Upward Trend	Not-Apparent Trend	Downward Trend	
Smithsfork	1 st & 2 nd				0.15	0.6
	Third Creek		0.25		0.25	
	Big Muddy			2.12		1.13
	Mill Creek			2.75	2.5	1.16
Bear River	Groo Canyon	0.6		0.1		
	Chalk Creek			1	0.1	1.8
Thomas Fork	Cliff Creek	1.25		1.0		
	Coal Creek	3.0	2.5	5	4.75	
	Dipper Creek			1.4	0.35	
	Huff Creek	4.86	3.14			
	Little Muddy		3.01	4.93	0.42	
	Raymond Creek	0.33		1.16	1.75	3
	Stoner Creek			0.52	1.98	
	TOTAL	10.04	8.90	19.98	12.25	7.69

PFC = Proper Functioning Condition; NF = Non-Functional

The allotment is a sub-basin watershed for the Bear River system. Dipper Creek, Coal Creek, Huff Creek, Stoner Creek, Little Muddy Creek, and Raymond Creek are tributaries of the Thomas Fork of the Bear River. Chalk Creek and Groo Canyon drain directly into the Bear River. Mill Creek, Muddy Creek, Corral

Creek, First Creek, Second Creek, Third Creek, and Fourth Creek are tributaries of the Smiths Fork of the Bear River. Dipper Creek, Coal Creek, Huff Creek, Stoner Creek, and Little Muddy Creek drain the northern half of the allotment. Raymond Creek, Chalk Creek, Groo Canyon, Mill Creek, Muddy Creek, Corral Creek, First Creek, Second Creek, Third Creek, and Fourth Creek drain the southern half of the allotment.

Proper Functioning Condition (PFC) assessments were completed in 1994 and 1995 on all perennial streams in the Smithsfork Allotment.

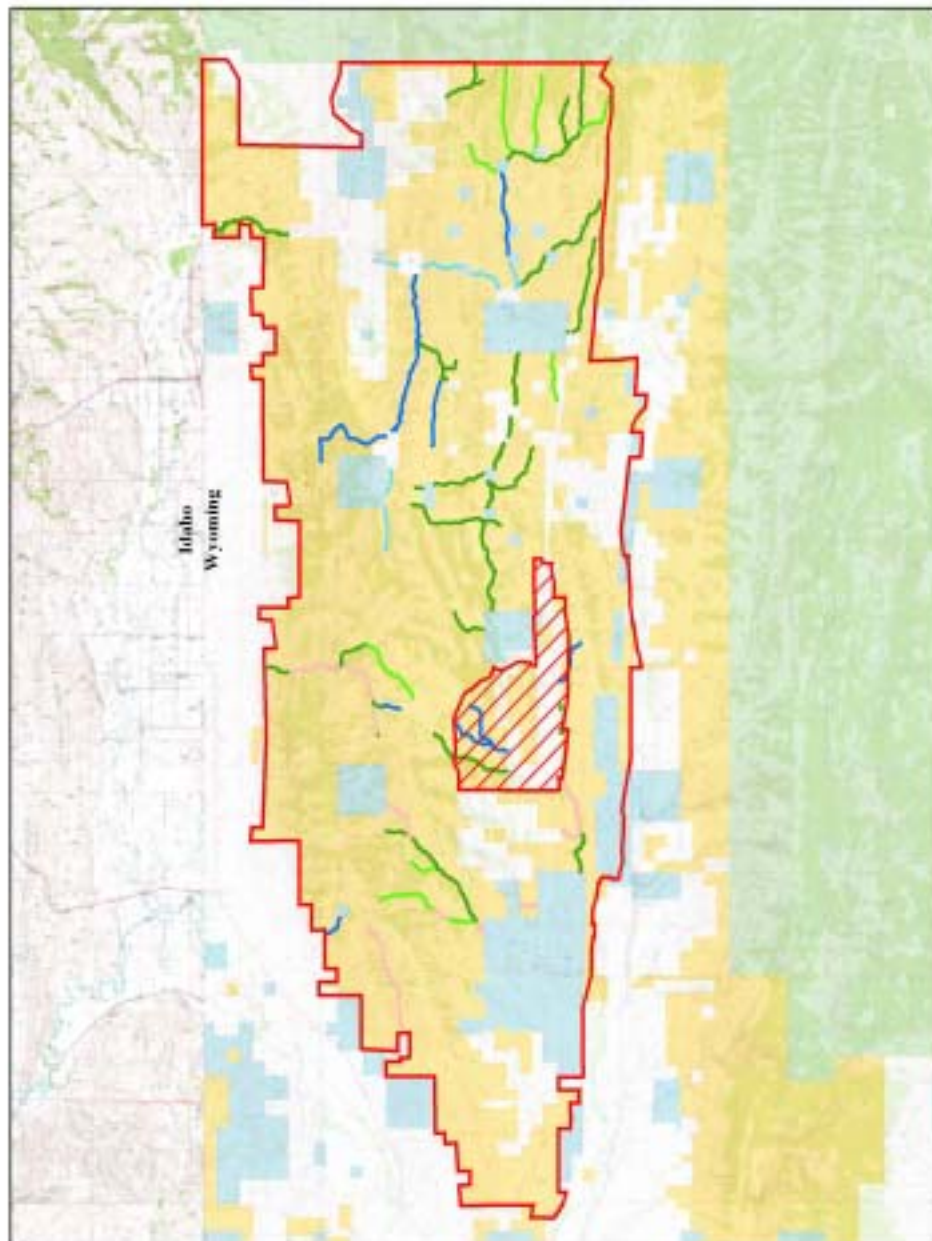
Streams that are in proper functioning condition have adequate vegetation, land form, or large woody debris present to dissipate stream energies, filter sediment, improve flood water retention, develop root masses adequate to stabilize stream banks and develop diverse habitat characteristics. On average, streams in this condition have the ability to withstand the energies of up to 35 year flood events. Proper Functioning Condition (PFC) is considered the minimum acceptable condition for long term management and is the minimum level that can sustain the resource.

Streams that are less than in proper functioning are considered functioning-at-risk which means the stream is functioning but one or more attributes related to existing soil, water, or vegetation makes them susceptible to degradation during peak flows or when a flood event occurs. When a stream is functioning-at-risk, a primary goal is to address management practices and improve the overall condition of the stream to the minimum PFC as quickly as possible. From this point the overall goals of a management plan can then be reached. Without being in a proper functioning condition, riparian resources cannot be sustained.

A non-functioning stream is one where the physical function of the stream is clearly out of balance. There could be a lack of proper streamside vegetation, excessive erosion or sediment deposition, excessive down cutting of the stream channel, excessive lateral movement of the stream, etc. Non-functioning streams do not have the ability to dissipate high stream flow energies.

Some of the stream reaches that are non-functional have degraded and down cut to the point that they need to completely re-establish the appropriate structural condition of their flood plains. The process of re-establishing flood plains can take decades but can be enhanced by a healthy vegetative community. Other problem reaches that are functioning-at-risk still have flood plain access and can recover with a change in vegetation alone. In both cases, the key to achieving PFC is the establishment of a healthy community of the proper vegetation.

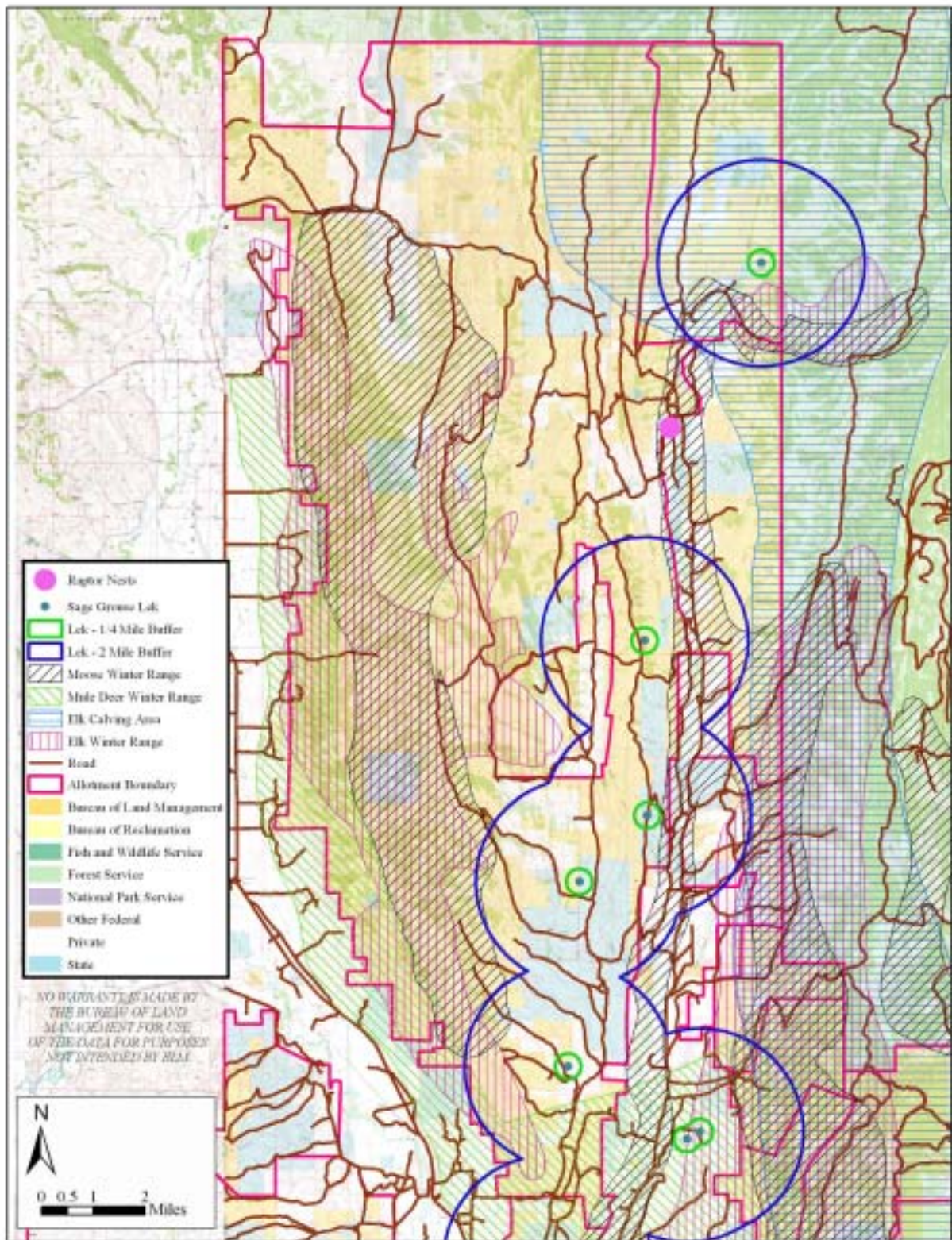
Management objectives are set for the resources present on the allotment. Riparian objectives whether general or site specific are used to determine the desired plant communities and the desired future condition of the aquatic systems as a whole. These objectives are frequently beyond the minimum of PFC. Resources such as fisheries habitat or water quality require other characteristics that would further be defined as objectives.



NO WARRANTY IS MADE BY THE BUREAU OF LAND MANAGEMENT
FOR USE OF THE DATA FOR PURPOSES NOT INTENDED BY BLM.



NOTICE – NOTICE – NOTICE
Due to Federal and State Land Exchanges
or Sales, this map may not accurately reflect
Land Ownership Status.
Please consult the local BLM Field Office or
USFS Ranger District for current updates on
ownership status.



12. Wildlife

The allotment is used yearlong by deer, elk, and moose. The western half of the allotment is classified as crucial winter range for deer, elk, and moose, which includes most of the Sublette Mountain Range. The northeast portion of the allotment is designated as an elk parturition area.

The allotment is used season-long by mule deer, elk, and moose. There is also a small but growing herd of antelope in the Little Muddy drainage in the summer. The western half of the allotment (the Sublette Mountain Range) is classified as crucial wildlife winter range, (see map on page 27).

Mule Deer: The allotment is part of the Wyoming Range Mule Deer herd unit. The western face of the Sublette Range and the southern tip of the allotment is mule deer crucial winter range. There are small numbers of resident deer that spend the summer in higher elevations of the allotment.

Elk: The allotment is part of the West Green River Elk herd unit. The entire Sublette Range, Raymond Creek and Igo Ridge are crucial elk winter range. The northeastern quarter of the allotment is classified as elk calving areas. There is a resident herd of elk that spend the summer in the higher elevations and forested areas of the allotment.

Moose: The allotment is part of the Lincoln Moose herd unit. The Sublette Range, Raymond Creek, Huff Creek, lower Coal Creek, and Mill Creek are crucial moose winter range. A few moose have been observed utilizing the western half and northeastern corner of the allotment throughout the spring, summer, and fall.

Pronghorn Antelope: A small herd of antelope utilizes the eastern portion of the allotment during the summer months.

Black bear: Black bear have been observed in the Raymond Mountain WSA and are suspected to occupy habitat in the northeast corner of the allotment. Because of the very limited conifer habitat and generally very steep terrain in much of the WSA, population levels would not be expected to ever be very high. No losses of livestock to black bear have been reported.

Mountain lion: Mountain lion occupy the Raymond Mountain WSA and the northeastern corner of the allotment. At various times, they likely could be found anywhere on the allotment. Within the Raymond Mountain WSA, mountain lion kills/caches of deer and elk have been located. Descriptions of mountain lion following hunters and hikers in the WSA have been reported and a few are taken by hunters in most years. No losses of livestock to mountain lion have been reported.

Grouse: Blue grouse and ruffed grouse occupy the timbered and brushy riparian areas in the western and northeastern parts of the allotment. Evidence suggests populations of both species are relatively stable and are hunted on the allotment. Sage grouse have been addressed in the Threatened, Endangered, and Sensitive species section.

Raptors: Raptors of various species occupy the entire allotment. Golden eagles, redtail hawks, and northern harriers are among the most common. There is a pair of bald eagles that have been nesting along Smiths Fork River and may use the allotment as a foraging area. The bald eagle is addressed in further detail in the Threatened, Endangered, and Sensitive species section.

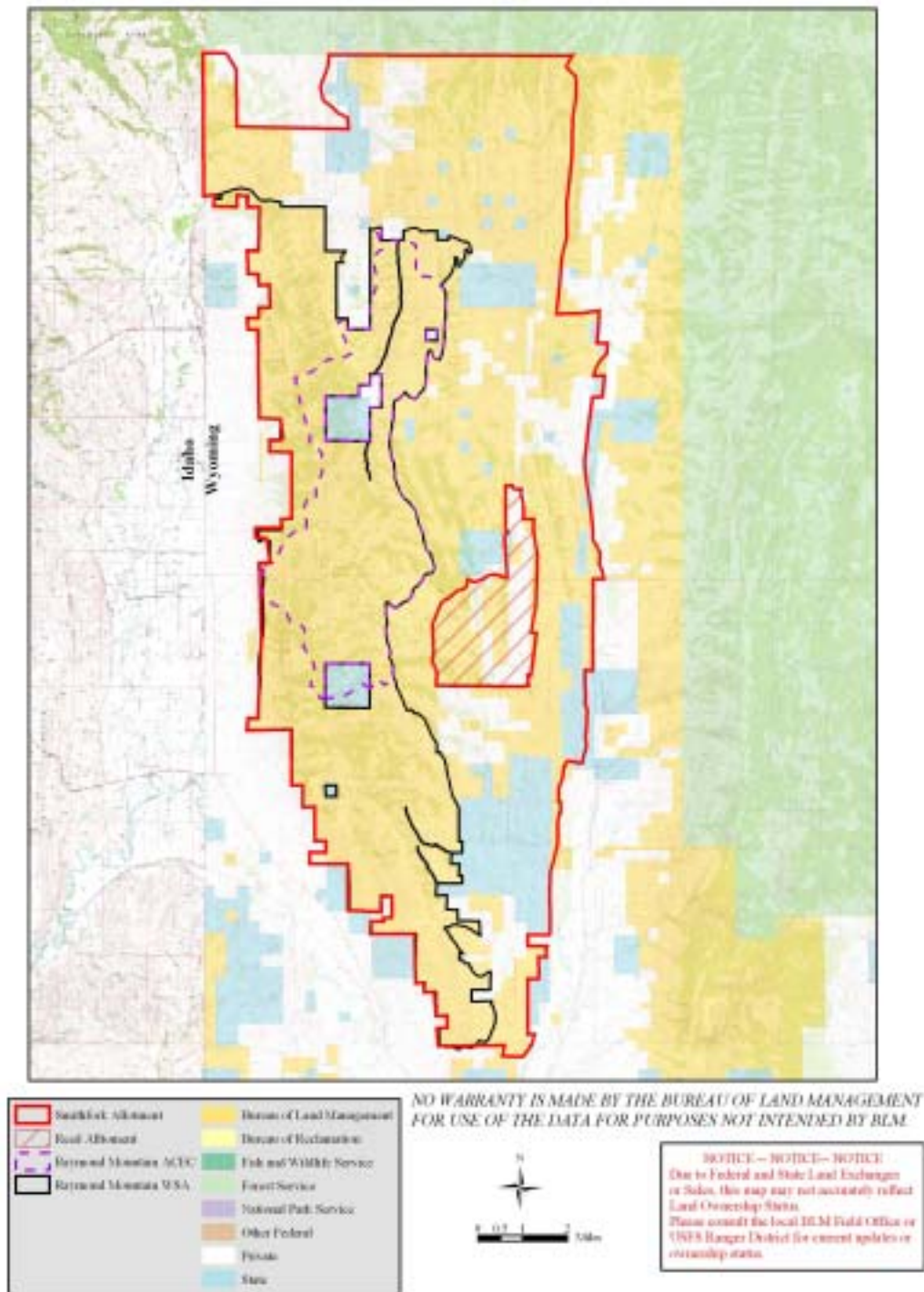
12. Wilderness Values

The Raymond Mountain Wilderness Study Area (WSA) is located in the Sublette Mountain Range (Raymond Mountains) and encompasses 32,936 acres in the western portion of the Smithsfork Allotment (See Map 2, page 4) designated a WSA in 1981 in the *Wyoming Wilderness Study Areas Final Inventory Report*. An Environmental Impact Statement was prepared in 1988, with a recommendation in 1990 to forward the Raymond Mountain WSA as suitable for Wilderness designation. Congressional action has not been initiated as of November 2004. Current management of the WSA is under the guidance of the

Interim Management Policy and Guidelines for Lands Under Wilderness Review (BLM 1979), the Kemmerer RMP of 1986, and the Raymond Mountain ACEC Plan of 1982, (see map on page 30).

The Raymond Mountain ACEC was designated in 1982. The ACEC was designated to amplify the management needs of the Bear River Cutthroat Trout, which is a BLM sensitive species. The ACEC is approximately 11 miles in length and 4 miles wide at its widest point. It contains approximately 12,660 acres, (see map on page 30).

The WSA is approximately nineteen miles in length and four miles wide at its widest point. The WSA has diverse vegetation and steep topography. A major portion of the area is forested with Douglas fir, lodgepole pine, and other coniferous trees, as well as aspen. The southern end of the WSA gives way to stands of big sagebrush and rock outcrops. Several drainages are located in the area. Huff and Raymond creeks contain an essentially pure strain of the Bonneville or Bear River cutthroat trout. The WSA is also an important area for moose, deer, elk and other wildlife, as well as providing forage for livestock. The WSA has historically been used by both cattle and sheep.



IV. ENVIRONMENTAL CONSEQUENCES/IMPACTS

IV.A. ALTERNATIVE 1: PROPOSED ACTION

a. Cultural Resources

The Proposed Action and each Alternative for livestock management should not result in any physical effects on the known cultural resources, or any others of the anticipated site types that may be identified in the future. Any projects that may be proposed for future developments would require individual cultural resource inventories to identify specific resources and assess the effects of specific actions. There are no known indirect or cumulative impacts identified. This grazing permit is issued subject to the regulations contained in the Federal Land Policy and Management Act (FLPMA), which contains language under FLPMA 303(a) and FLPMA 303(c)(2)(g) that can be used to protect cultural resources and prosecute the permit holder if violations of cultural resources statutes occur, related to permit use.

b. Livestock Management

The proposed deferred rotation grazing system is designed to improve both upland and riparian plant community health. The direct impact of the proposed grazing system would be to concentrate livestock on smaller areas for shorter time periods. Some additional cattle trailing would occur in the spring and fall when cattle are moved across the allotment to the correct use pasture. The trailing would occur within the permitted dates for use on the allotment and would not add to the authorized preference on the allotment. While this would require livestock permittees to maintain greater control of cattle, it would also make the end of season roundup more efficient. This system would provide season long control and improved livestock management through better livestock distribution on the Smithsfork Allotment. Confining cattle to pasture units should reduce repeated grazing pressure late in the season in riparian areas. Resource problems of excessive utilization can be dealt with through coordination between the range boss and the BLM as they arise rather than at the end of the grazing season. No significant adverse impacts to livestock management are anticipated as a result of the proposed pasture rotation.

There are no known cumulative adverse impacts expected with implementation of the proposed action. There would be cumulative beneficial impacts to the rangeland ecosystem. Restoration of natural processes and enhancement of upland and riparian environments should produce long term positive benefits to both rangelands.

c. Fisheries

Bonneville cutthroat trout: The Raymond Creek drainage and Huff Creek contain a genetically pure strain of the species. Improvements to riparian habitat as a result of this alternative will increase shading, deepen water depths and reduce water temperatures on the perennial streams supporting or capable of supporting the Bonneville cutthroat trout. The existing population would be expected to increase and expand into currently unoccupied streams with the improvements in the stream conditions. If all the streams reached even marginal habitat this could provide a connection between populations and increase the genetic transfer thus keeping inbreeding from becoming a threat. The direct, indirect and cumulative results of this alternative may impact individuals and populations of this species beneficially and would not contribute to a need to list this species under the ESA.

d. Geology/Soils

The proposed deferred rotation grazing system is designed to improve both upland and riparian plant community health. The proposed action would shorten the grazing period and increase the

stocking density. This provides several advantages to soils. The proposed grazing system would concentrate livestock on smaller areas for shorter time periods and reduce the amount of soil compaction. The proposed action, which includes the pasture rotation and residual greenline stubble height requirements and woody plant browsing limits, would have beneficial effects on soils especially along stream banks due to reduced erosion in a naturally highly erosive area, improve retention in run-off events, and lower sedimentation in the streams. Improved overall health of the uplands and riparian areas would benefit the soil resource over time. Grazing rotation would also provide for greater upland litter accumulation, which aids in soil protection.

There are no known cumulative adverse impacts expected with implementation of the proposed action. There would be cumulative beneficial impacts to the rangeland ecosystem. Restoration of natural processes and enhancement of upland and riparian environments should produce long term positive benefits to both rangelands and soil conditions.

e. Nonnative Or Invasive Species

This alternative would have a beneficial impact in regard to the invasive species. This alternative would produce a healthy native plant community allotment wide with fewer areas of heavy use. The healthy communities would be able to better resist the invasion of the noxious weeds and the reduced areas of disturbance for livestock concentration would provide less area for invasive species to become established.

f. Socioeconomics

The direct impact of the proposed action is that the level of grazing and number of livestock would continue at the current levels authorized in the 2001FD. The forage production and meat production harvested off the allotment would continue, but at the lowered levels prescribed in the 2001FD. Restoration of natural processes and enhancement of upland and riparian environments should produce long term positive benefits to recreation, particularly improved fishing and hunting activities, and the related socioeconomic condition of the region.

In the short term, the costs to the permittees did increase during the construction and with the annual maintenance of the increased fencing and spring developments. However, in the long term, these actions should make their operations more stable and sustainable. No further projects are currently planned under the proposed action.

g. Threatened, Endangered And Sensitive Species

Canada lynx: There are no Lynx Analysis Units (LAU's) recommended for management on the allotment and lynx are not considered present or using the allotment for anything other than transient use in dispersal. The results of the proposed action would be much improved riparian vegetation conditions. There would not be any likely measurable impacts in upland conifer or sagebrush habitat conditions. These results would tend to favor the prey base for the occasional transient lynx. Because of the very low likelihood of presence and the remote potential impacts of this alternative to lynx habitat, the net direct, indirect and cumulative result would be no effect to lynx.

Gray wolf: The gray wolf has potential to use habitat on the allotment, as they are a wide-ranging species utilizing big game as principle forage with occasional livestock depredation. Because of improved riparian habitat conditions resulting from this alternative, a slight improvement in the prey base for wolves could be expected. There is a continued potential for predation on the livestock in this alternative. The direct, indirect and cumulative effects on gray wolves, being an experimental, non-essential population with no known breeding packs and only occasional migrants in the area, would be a may affect individuals without jeopardizing the continued existence of their population.

Northern bald eagle: The northern bald eagle located on private land near the Smiths Fork River along the eastern edge of the allotment is within one mile of the allotment. No construction or other such activity is proposed within one mile of that nest. Improved riparian conditions from this alternative could improve the summer and winter prey base for bald eagle on the allotment but the effect would not be measurable. Fence maintenance on the boundary fence which is within 1 mile of the nest would continue to occur. However, this has been ongoing for several decades as has traffic on the adjacent Smithsfork road (State highway 232) indicating the nesting pair has acclimated to this activity through the years. The net direct, indirect and cumulative results of the alternative may affect northern bald eagle individuals but would not adversely affect the continued existence of their population.

Grizzly Bear: There is no occupied habitat on the allotment or anywhere within the Kemmerer Field Office area. Although the allotment is within the Wyoming Grizzly Bear Management Plan (February, 2002) proposed outer boundary for grizzly bear occupancy by natural dispersal, it is outside the recover zone/primary conservation area. The allotment is within a portion of the Wyoming Range that may be managed for low grizzly bear densities if it is ever delisted. There would be no changes to coniferous forest habitat or any native food sources as a result of this alternative. It is unlikely that grizzly bear will ever occupy habitat on the Smithsfork allotment although it could be an occasional migrant sometime in the future. As a result there would be no direct, indirect or cumulative effect to grizzly bear from implementation of this alternative.

Black-footed ferret: The black-footed ferret is dependent upon prairie dogs for ninety percent of their diet, but no prairie dog colonies (black-footed ferret habitat) are known or suspected to occur on the allotment. In addition, the effects of livestock grazing generally favor prairie dogs and no specific habitat modifying projects are proposed by this alternative. The net result is no direct, indirect or cumulative effect to the black-footed ferret.

Ute ladies'-tresses: This alternative would improve riparian conditions which could potentially improve Ute ladies'-tresses habitat. If this species were present it is possible that livestock could graze individual plants with a resulting negative effect. However, Ute ladies'-tresses have been surveyed for and were not found in this area, therefore there would be no direct, indirect or cumulative effect to this species.

No other federally listed species or their habitat are present or would potentially be affected in this area.

Mountain plover: No suitable mountain plover habitat has been found on the allotment at this time. Grazing is not considered to have negative impacts to mountain plover or its habitat. This alternative would have no direct, indirect or cumulative impact on mountain plover and would not contribute to a need to list the species under the ESA.

Greater Sage Grouse: Sage grouse are successfully inhabiting the allotment at this time. This alternative would result in improved riparian conditions which is brood rearing habitat. There are no additional range improvements needed or proposed that would negatively impact nesting, wintering, or lek habitat. Herding activity within nesting habitat between April 1 and July 15 has the potential to disrupt nests. However, anecdotal observations of sage grouse on the allotment suggest adequate breeding, nesting, rearing, and wintering conditions exist at the present time. This alternative would reduce the impact from herding during the nesting season one year out of four. The net direct, indirect and cumulative result of this alternative on sage grouse may impact individuals but would not impact populations and would not contribute to a need to list the species under the ESA.

Pigmy Rabbit: This alternative would improve conditions within and adjacent to the riparian areas of the allotment. These areas contain most of the potential pigmy rabbit habitat consisting of relatively taller and denser big sagebrush on deeper soil areas. With reduced grazing of the

riparian and immediately adjacent areas there would be less physical damage to existing sagebrush stands. Both of these effects are likely to be marginal with respect to pigmy rabbit habitat. The net direct, indirect and cumulative result is this alternative may impact individual pigmy rabbits and but not likely to adversely impact populations or contribute to a need to list the species under the ESA.

Long-eared myotis: Long-eared myotis is a cave and mine dwelling bat that forages in coniferous and deciduous forest habitats. These habitats would not be altered as a result of implementing this alternative. The net result of this alternative would be no impact on individuals or populations of this species and would not contribute to a need to list the species under the ESA.

Idaho pocket gopher: Idaho pocket gopher has potential to occur on the allotment associated with shallow stony soils. No surveys for this species have been conducted, but it is assumed to be present where correct conditions occur on the allotment. This alternative would not alter the suitability of the potential habitat on the allotment and would have no impact on the species and would not contribute to a need to list the species under the ESA.

Northern goshawk: Northern goshawk has potential to occur on the allotment associated with coniferous forest habitats and is assumed to be present in the western and northern portions of the allotment. This alternative would not alter the suitability of the potential habitat on the allotment and would have no impact on the species and would not contribute to a need to list the species under the ESA.

Ferruginous hawk: The ferruginous hawk has potential to occur associated with open country habitats but has not been found on the allotment. No activities, improvements or changes that would affect habitat suitability are anticipated from this alternative. This alternative would have no impact on the species and would not contribute to a need to list the species under the ESA.

Burrowing owl: The burrowing owl has a low potential to occur on the allotment. It is associated with animal burrows in open shrub habitat, especially prairie dog colonies. These conditions have not been observed but nesting in more isolated burrows is possible. No activities, improvements or changes that would affect habitat suitability are anticipated from this alternative. This alternative would have no direct, indirect or cumulative impact on the species and would not contribute to a need to list the species under the ESA.

Sagebrush Obligate Species: Sage thrasher, loggerhead shrike, Brewer's sparrow, and sage sparrow have potential to occur on the allotment. These species are all basin-prairie shrub and/or mountain-foothill shrub habitat obligate species. No activities, improvements or changes that would affect habitat suitability are proposed by this alternative. These upland shrub habitats are not anticipated to be altered as a result of this alternative. This alternative would have no direct, indirect or cumulative impact on the species and would not contribute to a need to list the species under the ESA.

h. Vegetation

The current grazing plan with the scheduled four pasture deferment would have a beneficial effect on upland vegetation on the allotment by allowing the vegetation to complete the physiological functions required for healthy vegetation. The plants that are grazed in the spring would have a chance to re-grow if there is available moisture.

The proposed action would have a beneficial effect on the riparian vegetation. Deferment would allow the Carex plants to expand onto newly formed silt bars both through vegetative and seed production. Additional discussion of impacts to riparian can be found under riparian wetlands section. Regrowth potential on the first use pasture would be maximized.

Monitoring has shown that the vegetative use level objectives listed in the 2001FD of 5 inches

standing stubble on Nebraska Sedge and 40% on willows at the end of the grazing season was met at the end of the 2004 grazing season.

i. Water Quality

There would be a beneficial impact from this alternative. Improvements in the riparian function on all streams would reduce the sediment loads and reduce temperatures thus improving the water quality. This alternative would realize improvement on the streams since there would be hot and late season deferment that should allow willow establishment and regrowth of riparian plants that would protect banks and trap silt.

Monitoring at the end of the 2004 grazing season has shown an expansion of the greenline vegetation onto previously bare banks on the outside cut banks.

j. Water Resources/Wetland/Riparian

The direct impacts to water resources and wetland/riparian would be the change in the vegetation that would occur with the change in grazing use. The deferment of the streams would allow these streams to develop seed heads on the carex and build carbohydrate reserves. Allowing carex to set seed would spread carex faster and colonize newly formed silt bars which would improve the riparian areas faster. Willows would have a chance to grow and set seed. From past observations the deferment could also reduce the use levels along the stream banks since cattle do not seem to prefer the older ungrazed carex plants later in the year.

The use of the last pasture in late summer and fall could impact the willows that are trying to establish on the riparian areas. Over use of willows has been a problem due to the low density of willows and the low growing nature of the willows that makes them susceptible to grazing use. Heavy use of the willows would keep them short.

The hot season and late season deferment of the spring use pasture riparian would allow the willows to grow without being grazed by cows. The herbaceous component of the riparian areas would have a chance to recover and grow to a point that it can act as silt traps or protect the stream banks during high water the next spring.

Allowing faster improvements in riparian conditions would capture more silt and reduce the sediment load. Capturing more silt would build banks and provide more streambank that can store water and thus increase late season flows.

As all the streams get close to PFC and the riparian plants and conditions improve, the water quality in both sediment load and water temperature should improve.

Monitoring at the end of the 2004 grazing season showed a increase in willows on Mill Creek. The 1998 greenline survey showed no willows. At the end of 2004, willows were very evident and some were over three feet in height. Approximately 20 willows were on the greenline transect.

k. Wildlife

Mule deer and elk: This alternative would improve forage conditions in and adjacent to the riparian areas. Raymond Creek watershed would provide an area of ungrazed forage for as long as the area is not grazed. With the eventual increase in willow and other hardwoods in the riparian areas; cover, fawning and calving habitat will improve through time. No additional fences or other improvements are considered necessary but the existing fences necessary to implement this alternative would remain in place and even though they are built to wildlife friendly specifications, they will occasionally snare a deer and potentially a calf elk. The net direct, indirect and cumulative result of this alternative is an improvement in year around conditions, with a potential

for a very limited increase in deer and elk on the allotment.

Moose: Improvements in the riparian communities would provide additional forage for moose through the additional willows. Raymond Creek watershed would provide an area of ungrazed forage for as long as the area is not grazed. The direct, indirect and cumulative result would be improved moose habitat for especially in the winter across the entire allotment. An increase in year around and wintering moose populations is possible.

Pronghorn Antelope: The majority of the changes in habitat conditions will occur within the riparian areas. No new fences are necessary but existing fences necessary to implement this alternative will remain in place. Although they are constructed to wildlife friendly specifications, an occasional snaring of an antelope and some inhibition to movement across the allotment would be expected. There is no net measurable direct, indirect and cumulative effect from this alternative on antelope.

Black bear: Improvements in riparian conditions, especially in the Raymond Canyon area are likely to improve conditions for black bear. Because of the very limited conifer habitat and generally very steep terrain in much of the otherwise suitable habitat, population levels are not very high and are not expected to change much as a result of implementing this alternative.

Mountain lion: Improvements in riparian conditions, especially in the Raymond Canyon area will improve conditions mule deer and elk and other smaller potential prey species. The result would be an improvement in mountain lion habitat, but population levels are not expected to change much as a result of implementing this alternative.

Grouse: Ruffed grouse utilize brushy riparian areas in the western and northeastern parts of the allotment. Riparian conditions will improve throughout the allotment with more willow and other shrubs. This will improve the quantity and quality of ruffed grouse habitat. Blue grouse occupy the timbered portions and immediately adjacent open areas of the allotment. These habitats will be little changed as a result of this alternative. The net direct, indirect and cumulative result will likely be a measurable increase in ruffed grouse populations and no change in blue grouse numbers.

Raptors: Riparian conditions will improve throughout the allotment with more willow and other shrubs. This will improve the quantity and quality of habitat for the small mammals and birds that make up the majority of these raptors prey base. Therefore, the quality or quantity of raptor habitat as a result of the direct, indirect and cumulative effects of implementing this alternative would improve.

I. Wilderness Values

The proposed deferred rotation grazing system is designed to improve both upland and riparian plant community. Overall, the direct impact from the proposed action would be an improvement to the riparian area, fish habitat, and uplands, as well as wilderness characteristics. The scenic value of Raymond Creek Watershed would be enhanced. No significant negative impacts to wilderness values are anticipated as a result of the grazing rotation. The management plan satisfies the non-impairment criteria and does not impair the suitability of the area for preservation as wilderness. It would provide cattle control to improve the riparian zones and offers improved watershed vegetation condition in the WSA, and does not impair the wilderness characteristics.

Residual greenline stubble height would increase sediment trapping and accelerate bank building leading to increase ground water storage, improved water quality, and enhanced riparian plant communities. These riparian improvements lead inevitably toward restoring proper stream function and improved water quality thus enhancing the wilderness values.

There are no known cumulative adverse impacts expected with implementation of the proposed

action. There would be cumulative beneficial impacts to the wilderness values. Restoration of natural processes and enhancement of upland and riparian environments should produce long term positive benefits in the WSA.

IV.A.2. MITIGATION AND MONITORING REQUIREMENTS

The use of riders, monitoring criteria, utilization, and stubble height requirements in the proposed action described in the attached Allotment Management Plan are mitigation measures to minimize potential impacts to riparian and upland areas. Compliance with this plan would be made a term and condition of all grazing permits issued for the Smithsfork Allotment. Annual end of season utilization monitoring and periodic resource trend assessment would be conducted to track the success of the proposed action as required by the Allotment Management Plan.

IV.B. ALTERNATIVE 2: ISSUE NEW TERM PERMITS WITH AN AMP LISTED IN THE TERMS AND CONDITIONS. THE AMP HAS A FOUR PASTURE REST ROTATION SYSTEM.

a. Cultural Resources

This alternative for livestock management should not result in any physical effects on the known cultural resources, or any others of the anticipated site types that may be identified in the future. Any projects that may be proposed for future developments would require individual cultural resource inventories to identify specific resources and assess the effects of specific actions. There are no known indirect or cumulative impacts identified. This grazing permit is issued subject to the regulations contained in the Federal Land Policy and Management Act (FLPMA), which contains language under FLPMA 303(a) and FLPMA 303(c)(2)(g) that can be used to protect cultural resources and prosecute the permit holder if violations of cultural resources statutes occur, related to permit use

b. Livestock Management

The proposed deferred/rest rotation grazing system is designed to improve both upland and riparian plant community health. Some additional cattle trailing would occur in the spring and fall when cattle are moved across the allotment to the correct use pasture. The trailing would occur within the permitted dates for use on the allotment and would not add to the authorized preference on the allotment. While this would require livestock permittees to maintain greater control of cattle, it would also make the end of season roundup more efficient. This system would provide season long control and improved livestock management through better livestock distribution on the Smithsfork Allotment. Confining cattle to pasture units should reduce repeated grazing pressure late in the season in riparian areas. Resource problems of excessive utilization can be dealt with through coordination between the range boss and the BLM as they arise rather than at the end of the grazing season. No significant adverse impacts to livestock management are anticipated as a result of the proposed pasture rotation.

There are no known cumulative adverse impacts expected with implementation of the proposed action. There would be cumulative beneficial impacts to the rangeland ecosystem. Restoration of natural processes and enhancement of upland and riparian environments should produce long term positive benefits to both rangelands.

b. Fisheries

Bonneville cutthroat trout: Improvements to riparian habitat as a result of this alternative will increase shading, deepen water depths and reduce water temperatures on the perennial streams supporting or capable of supporting the Bonneville cutthroat trout. The existing population would be expected to increase and expand into currently unoccupied streams with the improvements in the stream conditions. The riparian improvements would likely occur slightly more rapidly with the rest rotation system compared to the proposed action. If all the streams reached even marginal

habitat this could provide a connection between populations and increase the genetic transfer thus keeping inbreeding from becoming a threat. The direct results of this alternative may impact individuals and populations of this species beneficially and it would not contribute to a need to list the species under the ESA, but it is not materially different in long term effects from the proposed action.

As mentioned previously, if the permittees fenced their private and State leased lands, improvements in riparian condition would likely only occur on the Federal lands. If the private and State land fencing occurred and riparian conditions did not improve on those lands, the indirect result of this alternative would be a may impact likely to adversely impact Bonneville cutthroat trout because of the amount of private/State lands involved. The direct, indirect and cumulative of this alternative may impact and is likely to adversely impact Bonneville cutthroat trout and could contribute to a need to list the species under the ESA.

c. Geology/Soils

The proposed deferred/rest rotation grazing system is designed to improve both upland and riparian plant community health. The proposed action would shorten the grazing period and increase the stocking density. This provides several advantages to soils. The proposed grazing system would concentrate livestock on smaller areas for shorter time periods and reduce the amount of soil compaction. The proposed action, which includes the pasture rotation and residual greenline stubble height requirements and woody plant browsing limits, would have beneficial effects on soils especially along stream banks due to reduced erosion in a naturally highly erosive area, improve retention in run-off events, and lower sedimentation in the streams. Improved overall health of the uplands and riparian areas would benefit the soil resource over time. Grazing rotation would also provide for greater upland litter accumulation, which aids in soil protection.

There are no known cumulative adverse impacts expected with implementation of the proposed action. There would be cumulative beneficial impacts to the rangeland ecosystem. Restoration of natural processes and enhancement of upland and riparian environments should produce long term positive benefits to both rangelands and soil conditions.

d. Nonnative Or Invasive Species

This alternative would have a beneficial impact in regard to the invasive species. This alternative would produce a healthy native plant community allotment wide with fewer areas of heavy use. The healthy communities would be able to better resist the invasion of the noxious weeds and the reduced areas of disturbance for livestock concentration would provide less area for invasive species to become established.

e. Socioeconomics

The direct impact of the proposed action is that the level of grazing and number of livestock would be reduced by an additional twenty five percent.. The forage production and meat production harvested off the allotment would be reduced. Restoration of natural processes and enhancement of upland and riparian environments on federal lands, should produce long term positive benefits to recreation, particularly improved fishing and hunting activities, and the related socioeconomic condition of the region.

In the short term, the potential costs to the permittees may increase during the construction and maintenance of the increased fencing. In the long term, these actions could make their operations less stable and sustainable.

If the private and state lands were fenced, then access through these lands to the public lands could be severely restricted with resulting negative impacts to recreational opportunities and the related economics of the region.

f. Threatened, Endangered And Sensitive Species

Canada lynx: There are no Lynx Analysis Units (LAU's) recommended for management on the allotment and lynx are not considered present or using the allotment for anything other than transient use in dispersal. The results of the proposed action would be much improved riparian vegetation conditions.

As an interconnected action, the permittees may determine it would be in their benefit to fence their private and State leased lands to reduce the affect of the 25% reduction in AUMS. In addition, the grazing use of those lands could result in no improvement of the riparian conditions of those private and State lands. As a result, improvements to riparian conditions might only be realized on the Federal lands.

There would not be any likely measurable impacts in upland conifer or sagebrush habitat conditions. These results would tend to favor the prey base for the occasional transient lynx. Because of the very low likelihood of presence and the remote potential impacts of this alternative to lynx habitat, the net direct, indirect and cumulative result would be no effect to lynx, the same as the proposed action.

Gray wolf: The gray wolf has potential to use habitat on the allotment, as they are a wide-ranging species utilizing big game as principle forage with occasional livestock depredation. Because of improved riparian habitat conditions resulting from this alternative, a slight improvement in the prey base for wolves could be expected. There is a continued potential for predation on the livestock in this alternative.

If the permittees fenced their private and State leased lands, the improvements to the riparian areas would likely only occur on Federal lands but not substantially change conditions for wolves.

The direct, indirect and cumulative effects on gray wolves, being an experimental, non-essential population with no known breeding packs and only occasional migrants in the area, would be a may affect individuals without jeopardizing the continued existence of their population and is not materially different than the effects of the proposed action.

Northern bald eagle: No construction or other such activity is proposed within one mile of the existing nest along the east side of the allotment. Improved riparian conditions from this alternative could improve the summer and winter prey base for bald eagle on the allotment but the effect would not be measurable.

As mentioned previously, if the permittees fenced their private and State leased lands, improvements in riparian condition would likely only occur on the Federal lands.

Fence maintenance on the boundary fence which is within 1 mile of the nest would continue to occur. However, this has been ongoing for several decades as has traffic on the adjacent Smithsfork road (State highway 232) indicating the nesting pair has acclimated to this activity through the years. The net direct, indirect and cumulative results of the alternative may affect northern bald eagle individuals but would not adversely affect the continued existence of their population and is not greatly different from the affects of the proposed action.

Grizzly Bear: There is no occupied habitat on the allotment or anywhere within the Kemmerer Field Office area. There would be no changes to coniferous forest habitat or any native food sources as a result of this alternative. It is unlikely that grizzly bear will ever occupy habitat on the Smithsfork allotment although it could be an occasional migrant sometime in the future. As a result there would be no direct, indirect or cumulative effect to grizzly bear from implementation of this alternative.

Black-footed ferret: The black-footed ferret is dependent upon prairie dogs for ninety percent of their diet, but no prairie dog colonies (black-footed ferret habitat) are known or suspected to occur on the allotment. In addition, the effects of livestock grazing generally favor prairie dogs and no specific habitat modifying projects are proposed by this alternative. The net result is no direct, indirect or cumulative effect to the black-footed ferret.

Ute ladies'-tresses: This alternative would improve riparian conditions which could potentially improve Ute ladies'-tresses habitat. If this species were present it is possible that livestock could graze individual plants with a resulting negative effect. However, Ute ladies'-tresses have been surveyed for and were not found in this area, therefore there would be no effect to this species.

As mentioned previously, if the permittees fenced their private and State leased lands, improvements in riparian condition would likely only occur on the Federal lands but since the species is not present the direct, indirect and cumulative result would still be a no effect.

No other federally listed species or their habitat are present or would potentially be affected in this area.

Mountain plover: No suitable mountain plover habitat has been found on the allotment at this time. Grazing is not considered to have negative impacts to mountain plover or its habitat. This alternative would have no direct, indirect or cumulative impact on mountain plover and would not contribute to a need to list the species under the ESA.

Greater Sage Grouse: This alternative would result in improved riparian conditions and brood rearing habitat. There are 16 miles of additional fencing needed or proposed that could negatively impact sage grouse movement through impact with the fences while in flight. Herding activity within nesting habitat between April 1 and July 15 has the potential to disrupt nests. However, anecdotal observations of sage grouse on the allotment suggest adequate breeding, nesting, rearing, and wintering conditions exist at the present time. This alternative would reduce the impact from herding during the nesting season one year out of four.

Because of the need for increased fencing on public land, the direct effects of this alternative are slightly higher negative impacts than under the proposed action. The result of the direct effects of this alternative on sage grouse may impact individuals but would not impact populations and would not contribute to a need to list the species under the ESA.

As mentioned previously, if the permittees fenced their private and State leased lands, improvements in riparian condition would likely only occur on the Federal lands. These additional fences could have an impact on sage grouse. There would also be a likely use and a high potential for eradication of brush to improve livestock forage on the upland portions of these fenced lands which would reduce the suitability for nesting.

As a result, because of the amount of private and State lands that could be fenced, the indirect effects of the interconnected negative impacts of this alternative on sage grouse could be substantially greater than the proposed action. The net direct, indirect and cumulative result of this alternative on sage grouse may impact individuals and populations and could contribute to a need to list the species under the ESA.

Pigmy Rabbit: This alternative would improve conditions within and adjacent to the riparian areas of the allotment. These areas contain most of the potential pigmy rabbit habitat consisting of relatively taller and denser big sagebrush on deeper soil areas. With reduced grazing of the riparian and immediately adjacent areas there would be less physical damage to existing sagebrush stands. Both of these effects are likely to benefit pigmy rabbit habitat. The direct net result is this alternative may impact individual pigmy rabbits and but not likely adversely impact populations or contribute to a need to list the species under the ESA. The direct impacts of this alternative are not substantially different than the proposed action with respect to pigmy rabbits.

As mentioned previously, if the permittees fenced their private and State leased lands, improvements in riparian condition and the adjacent areas would likely only occur on the Federal lands.

As a result, the indirect effects of the interconnected negative impacts of this alternative on pigmy rabbit would be greater than the proposed action. It could elevate direct, indirect and cumulative effects to a may impact individual pigmy rabbits and may be likely adversely impact populations and could contribute to a need to list the species under the ESA.

Long-eared myotis: Long-eared myotis is a cave and mine dwelling bat that forages in coniferous and deciduous forest habitats. These habitats would not be altered as a result of implementing this alternative. The net direct, indirect and cumulative result of this alternative would be no impact on individuals or populations of this species and would not contribute to a need to list the species under the ESA.

Idaho pocket gopher: Idaho pocket gopher has potential to occur on the allotment associated with shallow stony soils. No surveys for this species have been conducted, but it is assumed to be present where correct conditions occur on the allotment. This alternative would not alter the suitability of the potential habitat on the allotment and would have no direct, indirect or cumulative impact on the species and would not contribute to a need to list the species under the ESA.

Northern goshawk: Northern goshawk has potential to occur on the allotment associated with coniferous forest habitats and is assumed to be present in the western and northern portions of the allotment. This alternative would not alter the suitability of the potential habitat on the allotment and would have no direct, indirect or cumulative impact on the species and would not contribute to a need to list the species under the ESA.

Ferruginous hawk: The ferruginous hawk has potential to occur associated with open country habitats but has not been found on the allotment. No activities, improvements or changes that would affect habitat suitability are anticipated from this alternative. This alternative would have no direct, indirect or cumulative impact on the species and would not contribute to a need to list the species under the ESA.

Burrowing owl: The burrowing owl has a low potential to occur on the allotment. It is associated with animal burrows in open shrub habitat, especially prairie dog colonies. These conditions have not been observed but nesting in more isolated burrows is possible. No activities, improvements or changes that would affect habitat suitability are anticipated from this alternative. This alternative would have no direct, indirect or cumulative impact on the species and would not contribute to a need to list the species under the ESA.

Sagebrush Obligate Species: Sage thrasher, loggerhead shrike, Brewer's sparrow, and sage sparrow have potential to occur on the allotment. These species are all basin-prairie shrub and/or mountain-foothill shrub habitat obligate species. No activities, improvements or changes that would affect habitat suitability are proposed by this alternative. These upland shrub habitats are not anticipated to be altered as a result of this alternative. This alternative would not have a direct impact on the species and would not contribute to a need to list the species under the ESA and would not be materially different than the proposed action.

As mentioned previously, if the permittees fenced their private and State leased lands, improvements in riparian condition and the adjacent areas would likely only occur on the Federal lands.

As a result, the indirect effects of the interconnected negative impacts of this alternative on sagebrush obligate species would be greater than the proposed action. However, it would likely not elevate the direct, indirect and cumulative affects above a may impact individuals but would not likely adversely impact populations and would not contribute to a need to list these species under the ESA.

If the private/State land fencing occurred, this alternative would have slightly more negative impacts to the sagebrush obligate species than the proposed action.

g. Vegetation

This alternative with the scheduled rest and deferment would have a beneficial effect on upland vegetation on the allotment by allowing the vegetation to complete the physiological functions required for healthy vegetation: one pasture would be rested each year and deferred the other three years.. There would be more use on plants in the uplands that may have been lightly grazed in the past. Even though there could be more grazing these plants evolved with grazing, and are in good condition. The plants that are grazed in the spring would have a chance to regrow if there is available moisture.

The proposed action would have a beneficial effect on the riparian vegetation. Total rest, and seasonal deferment would allow the Carex plants to expand onto newly formed silt bars both through vegetative and seed production. Additional discussion of impacts to riparian can be found under riparian wetlands section. Regrowth potential on the south end would be maximized.

h. Water Quality

There would be a beneficial impact from this alternative. Improvements in the riparian function on all streams would reduce the sediment loads and reduce temperatures thus improving the water quality. This alternative would realize improvement on the streams since there would be hot season and late season deferment that should allow willow establishment and regrowth of riparian plants that would protect banks and trap silt.

i. Water Resources/Wetland/Riparian

The direct impacts to water resources and wetland/riparian would be the change in the vegetation that would occur with the change in grazing use. The deferment and rest of the streams would allow these streams to develop seed heads on the carex and build carbohydrate reserves. Allowing carex to set seed would spread carex faster and colonize newly formed silt bars which would improve the riparian areas faster. Willows would have a chance to grow and set seed. From past observations the deferment and rest could also reduce the use levels along the stream banks since cattle do not seem to prefer the older ungrazed carex plants later in the year.

The use of the last pasture in late summer and fall could impact the willows that are trying to establish. Over use of willows has been a problem due to the low density of willows and the low growing nature of the willows that makes them susceptible to grazing use. Heavy use of the willows would keep them short and would not provide the shading needed for temperature modifications.

The hot season and late season deferment/rest of the riparian areas would allow the willows to grow without being grazed by cows. The herbaceous component of the riparian areas would have a chance to recover and grow to a point that it can act as silt traps or protect the stream banks during high water the next spring.

Allowing faster improvements in riparian conditions would capture more silt and reduce the sediment load. Capturing more silt would build banks and provide more streambank that can store water and thus increase late season flows.

As all the streams get close to PFC and the riparian plants and conditions improve, the water quality in both sediment load and water temperature should improve.

j. Wildlife

Mule deer and elk: This alternative would improve forage conditions in and adjacent to the riparian areas. Raymond Creek watershed would provide an area of ungrazed forage for as long as the area is rested. With the eventual increase in willow and other hardwoods in the riparian areas; cover, fawning and calving habitat will improve through time.

There would be short term impacts to wildlife from the additional fence that would be needed to operate this rotation pattern. The fence would be constructed to BLM standards for deer and elk so the impacts would be reduced as much as possible. The additional fence would add to the total amount of fencing on the allotment. The fence would be located on the ridge top on the Igo Speedway and could change winter use patterns and wildlife movement until the animals learn how to negotiate the fences.

The net direct result of this alternative is an improvement in year around conditions on the Federal lands, with a potential for a very limited increase in deer and elk on the allotment but a slight increase in animals lost to fence accidents and a slight increase in interference to movement. The net direct affects of this alternative on deer and elk are similar to the proposed action.

If the permittees fenced their private and State leased lands to reduce the impact of a further 25% reduction necessitated by the rest rotation grazing system, improvements in riparian condition and the benefits to deer and elk year around, would likely only occur on the Federal lands. There also would be a potential for increased use on the upland portions of these fenced lands which would reduce the suitability for wintering deer and elk. These additional fences would not have to be built to big game friendly specifications and would have a negative impact on deer movement and would increase fence caused mortality in spring, summer and fall. Elk movement would be somewhat affected and there would be an increased risk of fence caused mortality with calf elk. These elk conflicts would mostly occur in late fall, winter and early spring as elk move into and out of the area. Elk damage to the private and State fences could increase conflicts with unauthorized livestock trespass on Federal lands. The net direct, indirect and cumulative affects of this alternative on deer and elk are substantially worse than the proposed action.

Moose: Improvements in the riparian communities would provide additional forage for moose through the additional willows. Raymond Creek watershed would provide an area of ungrazed forage for as long as the area is not grazed. The result would be improved forage conditions for moose especially in the winter. A slight increase in year around and wintering moose populations is possible.

If the permittees fenced their private and State leased lands, the benefits to moose would likely only occur on the Federal lands. Moose currently do not winter on those private and State lands so the wintering impacts from such fencing would be negligible except for some conflict in moose movement. The net direct, indirect and cumulative affects of this alternative on moose are similar to the proposed action.

Pronghorn Antelope: The majority of the changes in habitat conditions will occur within the riparian areas. There could be impacts to antelope from the additional fence that would be needed to operate this rotation pattern. The fence would be constructed to BLM standards for antelope so the impacts would be reduced as much as possible. The additional fence would add to the total amount of fencing on the allotment but the added fence would be located on the ridge top on the Igo Speedway which is outside the major antelope habitat and movement areas. There would likely not be any net measurable direct positive or negative effect from this alternative on antelope which is not substantially different than the proposed action with respect to antelope.

If the permittees fenced their private and State leased lands improvements in riparian condition would likely only occur on the Federal lands. There also would be a potential for increased use on the upland portions of these fenced lands which would reduce the suitability for antelope. These additional fences would not have to be built to big game friendly specifications. Antelope movement would be seriously affected and there would be an increased fence caused mortality. These antelope conflicts would mostly occur in spring, summer and fall as antelope summer in the area and move to and from wintering areas to the south of the allotment. There would be major negative indirect and cumulative affects from this alternative on antelope if the private and State land fencing occurs which are substantially worse for antelope than the proposed action.

Black bear: Improvements in riparian conditions, especially in the Raymond Canyon area are likely to improve conditions for black bear. Because of the very limited conifer habitat and generally very steep terrain in much of the otherwise suitable habitat, population levels are not very high and are not expected to change much as a result of implementing this alternative.

Mountain lion: Improvements in riparian conditions, especially in the Raymond Canyon area will improve conditions mule deer and elk and other smaller potential prey species. The result would be an improvement in mountain lion habitat, but population levels are not expected to change much as a result of implementing this alternative.

Grouse: Ruffed grouse utilize brushy riparian areas in the western and northeastern parts of the allotment. Riparian conditions will improve throughout the allotment with more willow and other shrubs. This will improve the quantity and quality of ruffed grouse habitat. Blue grouse occupy the timbered portions and immediately adjacent open areas of the allotment. These habitats will be little changed as a result of this alternative. The net direct result will likely be a measurable increase in ruffed grouse populations and no change in blue grouse numbers and would be very similar to the proposed action.

If the permittees fenced their private and State leased lands improvements in riparian condition would likely only occur on the Federal lands. While most of the lands potentially affected by such fences are on the south end of the allotment, away from the higher potential grouse areas, some loss in ruffed grouse habitat quality on the fenced lands could occur. The net direct, indirect and cumulative affect of this alternative could be slightly poorer conditions for ruffed grouse than the proposed action. There would be little difference for blue grouse.

Raptors: Riparian conditions will improve throughout the allotment with more willow and other shrubs. This will improve the quantity and quality of habitat for the small mammals and birds that make up the majority of these raptors prey base. Therefore, the quality or quantity of raptor habitat as a result of implementing this alternative would improve. The net direct benefit to raptors would be about the same as the proposed action.

If the private and State land fencing occurred, the improvement in riparian conditions would likely only occur on the Federal lands with the net indirect and cumulative t affect of this alternative slightly poorer for raptors than the proposed action.

1. **Wilderness Values** The proposed deferred/rest rotation grazing system is designed to improve both upland and riparian plant community. Overall, the direct impact from the proposed action would be an improvement to the riparian area, fish habitat, and uplands, as well as wilderness characteristics. The scenic value of Raymond Creek Watershed would be enhanced. No significant negative impacts to wilderness values are anticipated as a result of the grazing rotation. The management plan satisfies the non-impairment criteria and does not impair the suitability of the area for preservation as wilderness. It would provide cattle control to improve the riparian zones and offers improved watershed vegetation condition in the WSA, and does not impair the wilderness characteristics.

The additional fence would be built on the WSA boundary and would not impact the lands inside the Wilderness Study Area.

Residual greenline stubble height would increase sediment trapping and accelerate bank building leading to increase ground water storage, improved water quality, and enhanced riparian plant communities. These riparian improvements lead inevitably toward restoring proper stream function and improved water quality thus enhancing the wilderness values.

There are no known cumulative adverse impacts expected with implementation of the proposed action. There would be cumulative beneficial impacts to the wilderness values. Restoration of natural processes and enhancement of upland and riparian environments should produce long term positive benefits in the WSA.

IV.B.2. MITIGATION AND MONITORING REQUIREMENTS

The use of riders, monitoring criteria, utilization, and stubble height requirements in the proposed action described in the attached Allotment Management Plan are mitigation measures to minimize potential impacts to riparian and upland areas. Compliance with this plan would be made a term and condition of all grazing permits issued for the Smithsfork Allotment. Annual end of season utilization monitoring and periodic resource trend assessment would be conducted to track the success of the proposed action as required by the Allotment Management Plan.

IV.C. ALTERNATIVE 3: ISSUE NEW TERM PERMITS AND RETURN TO MANAGEMENT SCENARIO PRIOR TO THE AUGUST 2, 2001 FINAL DECISION

a. Cultural Resources

This alternative for livestock management should not result in any physical effects on the known cultural resources, or any others of the anticipated site types that may be identified in the future. No projects are proposed for future developments which would require individual cultural resource inventories to identify specific resources and assess the effects of specific actions. There are no known indirect or cumulative impacts identified. This grazing permit is issued subject to the regulations contained in the Federal Land Policy and Management Act (FLPMA), which contains language under FLPMA 303(a) and FLPMA 303(c)(2)(g) that can be used to protect cultural resources and prosecute the permit holder if violations of cultural resources statutes occur, related to permit use

b. Livestock Management

Improved forage for livestock may not be realized without formal implementation of a grazing system. Distribution of livestock would continue to be a problem on the allotment. The beneficial impacts to livestock forage resulting from the proposed action may not be realized. Livestock numbers would be reinstated to all permittees. No management would be required, thus no riders would be needed. Gathering livestock off the allotment at the end of the season would be more difficult because the livestock would be scattered over the entire allotment.

c. Fisheries

Bonneville cutthroat trout: The Raymond Creek drainage and Huff Creek contain a genetically pure strain of the species. Deterioration of riparian habitat as a result of this alternative will reduce shading, decrease water depths and increase water temperatures on the perennial streams supporting or capable of supporting the Bonneville cutthroat trout. The existing population would be expected to be reduced and would not expand into currently unoccupied streams. The connection between populations would be reduced as would the genetic transfer thus making inbreeding a real threat. The direct, indirect and cumulative results of this alternative would negatively impact individuals and populations of this species and could contribute to a need to list

the species under the ESA.

d. Geology/Soils

Under the No Action Alternative, the grazing system designed for the allotment to improve both upland and riparian plant community health would not be implemented. This would provide several disadvantages to soils. The Proposed Action, which includes the pasture rotation and residual greenline stubble height requirements and upland utilization limits, which could have beneficial effects on soils, would not occur. Without the rotation system stream bank soils may not be provided increased protection through increased vegetative cover. Improved overall health of the upland and riparian vegetation may not occur and subsequent benefits to the soil resource would not be realized. The no action alternative would not provide for greater upland litter accumulation, which aids in soil protection.

e. Nonnative Or Invasive Species

With return to the situation prior to the 2001FD, the chance for increased outbreaks of invasive species would be anticipated. Management to prevent excessive soil disturbance at salting areas, watering sites, and sensitive soil condition areas could not be guaranteed. Livestock salting areas may not be moved from year to year. This could maintain or increase the areas open for invasion of undesirable species. The BLM weed management program would continue under the No Action Alternative.

f. Socioeconomics

The impact to the local economy and area ranches would improve because of the additional numbers that would be run on the allotment. The operators would not have the cost of riders or maintenance of the projects on the allotment.

Inhibition of natural processes and degradation of upland and riparian environments would produce long term negative impacts to recreation, particularly loss of quality fishing and hunting activities, and the related socioeconomic condition of the region.

k. Threatened, ~~And~~ Endangered And Sensitive Species

Canada lynx: There are no Lynx Analysis Units (LAU's) recommended for management on the allotment and lynx are not considered present or using the allotment for anything other than transient use in dispersal. The results of the proposed action would be deteriorated riparian vegetation conditions. There would not be any likely measurable impacts in upland conifer or sagebrush habitat conditions. These results would tend to reduce the potential prey base and cover value for the occasional transient lynx. Because of the very low likelihood of presence and the remote potential impacts of this alternative to lynx habitat, the net direct, indirect and cumulative result would be no effect to lynx, and is similar to the proposed action.

Gray wolf: The gray wolf has potential to use habitat on the allotment, as they are a wide-ranging species utilizing big game as principle forage with occasional livestock depredation. Because of deterioration of riparian habitat conditions resulting from this alternative, a slight loss in the prey base for wolves could be expected. There is a continued potential for predation on the livestock in this alternative. The direct, indirect and cumulative effects on gray wolves, being an experimental, non-essential population would be a may affect individuals without jeopardizing the continued existence of their population, and is similar to the proposed action.

Northern bald eagle: The northern bald eagle located on private land near the Smiths Fork River along the eastern edge of the allotment is within one mile of the allotment. No construction or other such activity is proposed within one mile of that nest. There would be a deterioration of

riparian conditions from this alternative which would reduce the summer and winter prey base for bald eagle on the allotment but the effect would not be measurable. Fence maintenance on the boundary fence which is within 1 mile of the nest would continue to occur. However, this has been ongoing for several decades as has traffic on the adjacent Smithsfork road (State highway 232) indicating the nesting pair has acclimated to this activity through the years. The net direct, indirect and cumulative results of the alternative may affect northern bald eagle individuals but would not adversely affect the continued existence of their population and would be similar to the proposed action.

Grizzly Bear: There is no occupied habitat on the allotment or anywhere within the Kemmerer Field Office area. Although the allotment is within the Wyoming Grizzly Bear Management Plan (February, 2002) proposed outer boundary for grizzly bear occupancy by natural dispersal, it is outside the recover zone/primary conservation area. The allotment is within a portion of the Wyoming Range that may be managed for low grizzly bear densities if it is ever delisted. There would be no changes to coniferous forest habitat or any native food sources as a result of this alternative. It is unlikely that grizzly bear will ever occupy habitat on the Smithsfork allotment although it could be an occasional migrant sometime in the future. As a result there would be no direct, indirect or cumulative effect to grizzly bear from implementation of this alternative.

Black-footed ferret: The black-footed ferret is dependent upon prairie dogs for ninety percent of their diet, but no prairie dog colonies (black-footed ferret habitat) are known or suspected to occur on the allotment. In addition, the effects of livestock grazing generally favor prairie dogs and no specific habitat modifying projects are proposed by this alternative. The net result is no direct, indirect or cumulative effect to the black-footed ferret.

Ute ladies'-tresses: This alternative would deteriorate riparian conditions which could potentially reduce Ute ladies'-tresses habitat. If this species were present it is possible that livestock could graze individual plants with a resulting negative effect. However, Ute ladies'-tresses have been surveyed for and were not found in this area, therefore there would be no direct, indirect or cumulative effect to this species.

No other federally listed species or their habitat are present or would potentially be affected in this area.

Mountain plover: No suitable mountain plover habitat has been found on the allotment at this time. Grazing is not considered to have negative impacts to mountain plover or its habitat. This alternative would have no direct, indirect or cumulative impact on mountain plover and would not contribute to a need to list the species under the ESA.

Greater Sage Grouse: Sage grouse successfully inhabit the allotment at this time. This alternative would result in deteriorated riparian conditions which is brood rearing habitat. There is existing fencing that would be removed which would benefit sage grouse by reducing potential bird strikes on the wire. Herding activity within nesting habitat between April 1 and July 15 has the potential to disrupt nests. However, anecdotal observations of sage grouse on the allotment suggest adequate breeding, nesting, rearing, and wintering conditions exist at the present time. This alternative would not change the impact from herding during the nesting season. The net result of this alternative on sage grouse may impact individuals and may impact populations and could contribute to a need to list the species under the ESA. This alternative has substantially negative direct, indirect and cumulative impacts on sage grouse compared to positive impacts of the proposed action.

Pigmy Rabbit: This alternative would deteriorate conditions within and adjacent to the riparian areas of the allotment. These areas contain most of the potential pigmy rabbit habitat consisting of relatively taller and denser big sagebrush on deeper soil areas. With heavy grazing of the riparian and immediately adjacent areas there would cause physical damage to existing sagebrush stands. Both of these effects are likely to reduce pigmy rabbit habitat quality and quantity. The net direct,

indirect and cumulative result of this alternative may impact individual pigmy rabbits and is likely to adversely impact populations and could contribute to a need to list the species under the ESA.

Long-eared myotis: Long-eared myotis is a cave and mine dwelling bat that forages in coniferous and deciduous forest habitats. These habitats would not be altered as a result of implementing this alternative. The net result of this alternative would be no direct, indirect or cumulative impact on individuals or populations of this species and would not contribute to a need to list the species under the ESA.

Idaho pocket gopher: Idaho pocket gopher has potential to occur on the allotment associated with shallow stony soils. No surveys for this species have been conducted, but it is assumed to be present where correct conditions occur on the allotment. This alternative would not alter the suitability of the potential habitat on the allotment and would have no direct, indirect or cumulative impact on the species and would not contribute to a need to list the species under the ESA.

Northern goshawk: Northern goshawk as potential to occur on the allotment associated with coniferous forest habitats and is assumed to be present in the western and northern portions of the allotment. This alternative would not alter the suitability of the potential habitat on the allotment and would have no direct, indirect or cumulative impact on the species and would not contribute to a need to list the species under the ESA.

Ferruginous hawk: The ferruginous hawk has potential to occur associated with open country habitats but has not been found on the allotment. No activities, improvements or changes that would affect habitat suitability are anticipated from this alternative. This alternative would have no direct, indirect or cumulative impact on the species and would not contribute to a need to list the species under the ESA.

Burrowing owl: The burrowing owl has a low potential to occur on the allotment. It is associated with animal burrows in open shrub habitat, especially prairie dog colonies. These conditions have not been observed but nesting in more isolated burrows is possible. No activities, improvements or changes that would affect habitat suitability are anticipated from this alternative. This alternative would have no direct, indirect or cumulative impact on the species and would not contribute to a need to list the species under the ESA.

Sagebrush Obligate Species: Sage thrasher, loggerhead shrike, Brewer's sparrow, and sage sparrow have potential to occur on the allotment. These species are all basin-prairie shrub and/or mountain-foothill shrub habitat obligate species. Heavy grazing of the riparian and immediately adjacent areas would cause physical damage to existing sagebrush stands and would reduce habitat suitability for sagebrush obligate species. The direct, indirect and cumulative affects of this alternative may impact individuals and populations of these species and could contribute to a need to list these species under the ESA.

g. Vegetation

Under this alternative, grazing management would return to what it was prior to the 2001FD. Livestock numbers would be reinstated to full numbers and season long grazing would be authorized. Productivity of the vegetation communities could very likely decline in areas that receive heavy use, thus decreasing the availability, diversity, and age class structure of the vegetation. This decline could lead to a more degraded condition in portions of the deer and elk winter range, as well as reduce the available forage for livestock.

h. Water Quality

Water quality would not improve over the long-term if this alternative is implemented. If the

grazing system is not implemented overgrazing could occur and water quality could be reduced to the point that fisheries habitat could be compromised.

i. Water Resources/Wetland/Riparian

The segments of streams that are currently at Proper Functioning Condition could deteriorate under this alternative. Without formal implementation of a grazing system, optimal rest periods for vegetation would not be realized. Vegetative communities needed for water retention may not be maintained in a fashion that would allow for water retention. Any reduced vigor in the riparian plant community could indirectly impact the brood rearing habitat for sage grouse.

j. Wildlife

Mule deer and elk: There would be no new impacts to big game winter range than those that existed at the time of the 2001FD. With a return to the grazing use that existed at that time, there would be a deterioration of parts of the winter and summer ranges due to livestock distribution problems. This alternative would reduce forage availability in and adjacent to the riparian areas. Raymond Creek watershed would be grazed with a substantial loss of summer and forage for deer and elk. With a reduction in willow and other hardwoods in the riparian areas; cover, fawning and calving habitat will be reduced through time.

There would be benefits to deer and elk from the removal of fences not needed to operate this system. Restriction of deer and elk movement and potential of fence caused mortality would be reduced.

The net result of this alternative is a loss of year around habitat condition, with a potential for a decrease in deer and elk on the allotment. The net direct, indirect and cumulative affects of this alternative on deer and elk are substantially worse than the proposed action.

Moose: There would be deterioration in the riparian communities reducing forage for moose through the loss of willows and other shrubs. Raymond Creek watershed would be grazed with losses in the shrub habitat needed for year around moose habitat. The direct, indirect and cumulative result would be reduced forage conditions for moose year around with the greatest impact in winter. A slight reduction in year around and wintering moose populations is possible.

Pronghorn Antelope: The majority of the changes in habitat conditions will occur within the riparian areas. A return of heavy grazing in the riparian areas will result in loss of sagebrush in immediately adjacent areas due to trampling. There would be reductions in fencing that would benefit antelope. There would likely be a net negative direct, indirect and cumulative effect from this alternative on antelope compared to the proposed action.

Black bear: Deterioration of riparian condition, especially in the Raymond Canyon area is likely to reduce habitat value for black bear. But, because of the very limited conifer habitat and generally very steep terrain in much of the otherwise suitable habitat, population levels are not very high and are not expected to change much as a result of implementing this alternative.

Mountain lion: Deterioration of riparian condition, especially in the Raymond Canyon area will reduce habitat value for mule deer and elk and other smaller potential prey species. The result would be a reduction in mountain lion habitat, but population levels are not expected to change much as a result of implementing this alternative.

Grouse: Ruffed grouse utilize brushy riparian areas in the western and northeastern parts of the allotment. Riparian conditions would deteriorate throughout the allotment with less willow and other shrubs especially in Raymond Canyon. This will reduce the quantity and quality of ruffed grouse habitat. Blue grouse occupy the timbered portions and immediately adjacent open areas of the allotment. These habitats will be little changed as a result of this alternative. The net direct,

indirect and cumulative result will likely be a reduction in ruffed grouse populations and no change in blue grouse numbers and would be substantially worse than the proposed action.

Raptors: Riparian conditions will deteriorate throughout the allotment with fewer willow and other shrubs and less dense vegetation. This will reduce the quantity and quality of habitat for the small mammals and birds that make up the majority of these raptors prey base. Therefore, the quality or quantity of raptor habitat as a result of implementing this alternative would be reduced. The net direct, indirect and cumulative effect to raptors would be worse than the proposed action.

k. Wilderness Values

The Raymond Mountain Watershed Fence would be removed and grazing would again be authorized in Raymond Canyon. The reduced resource conditions that have improved with the current rotational system would be anticipated to be lost and the poor conditions to return.

IV.C.2. MITIGATION AND MONITORING REQUIREMENTS

If this alternative was to be the accepted alternative, then mitigation and monitoring requirements over the minimum to ascertain correct numbers of livestock would not be needed.

IV.D. ALTERNATIVE 4: No Grazing

a. Cultural Resources

No adverse impacts to federal cultural resources would be anticipated under this alternative.

b. Livestock Management

While the federal AUMS could be suspended indefinitely, the permittee and landowner could still graze State and private lands adjacent to and intermingled with the public lands at his discretion. In order to graze the private and State lands and ensure no unauthorized use of public lands would occur, the landowner would need construct approximately 50 miles of fence around the non-federal lands. The additional fencing could prove cost prohibitive to the livestock operator. If the non-federal lands were grazed without fences, there would be a continuous problem with unauthorized use that could be costly for the BLM in both money and staff power to solve.

c. Fisheries

Bonneville cutthroat trout: Direct affects would be improvements to riparian habitat as a result of this alternative will increase shading, deepen water depths and reduce water temperatures on the perennial streams supporting or capable of supporting the Bonneville cutthroat trout on Federal land. The existing population would be expected to increase and expand into currently unoccupied streams with the improvements in the stream conditions. The riparian improvements would occur more rapidly than with the rest rotation system or the proposed action. If all the streams reached even marginal habitat this could provide a connection between populations and increase the genetic transfer thus keeping inbreeding from becoming a threat. The direct results of this alternative on Federal land may impact individuals and populations of this species beneficially and would not contribute to a need to list the species under the ESA.

However, the permittees would be forced to construct about 50 miles of fence to be able to graze their private and State leased lands. Improvements in riparian condition would only occur on the Federal lands. Riparian conditions on the private and State lands would likely deteriorate. The intermingled Federal lands below the private and State lands might have more shading and better conditions but the waters feeding them will have come through the riparian conditions on the private and State lands. The direct, indirect and cumulative result of this alternative would be a may impact likely to adversely impact Bonneville cutthroat trout because of the amount of

private/State lands involved and it might contribute to a need to list the species under the ESA.

d. Geology/Soils

Since under the No Livestock Grazing Alternative no livestock would be allowed to graze the allotment, movement of soils due to hoof action would not occur this could decrease soil erosion. Soils should be adequately covered by vegetation and litter to prevent soil loss from wind and water since plants would not be grazed by livestock and residual plant material would build up over the soils. Soils would not have compacted areas from livestock trampling. Wildlife would continue to use the allotments and any soil changes on the public lands could be directly attributed to wildlife use. The operator could fence off private and state lands within the allotments and use these lands for grazing. This could result in patchwork overuse on the private and state lands and reduced plant cover in these areas. This could create areas of increased soil erosion on the state and private lands.

e. Nonnative Or Invasive Species

The BLM weed management program would continue under the No Grazing Alternative. Wildlife would continue to graze the allotments and could spread seed from outside areas. The operator could fence off private and state lands within the allotments and use these lands for grazing. This could result in patchwork overuse on the private and state lands and areas of bare soil where weeds could establish. This could provide a source area for seed that could then spread to the public lands.

f. Socioeconomics

While the federal AUMS could be suspended indefinitely, the permittee and landowner could still graze State and private lands adjacent to and intermingled with the public lands at his discretion. In order to graze the private and State lands and ensure no unauthorized use of public lands would occur, the landowner would need to construct approximately 50 miles of fence around the non-federal lands. The costs of this fencing could negatively impact the spending power of the ranch in the local community. The traditional ranching operation could be lost due to the inability of the operator to maintain a fiscally viable number of herd animals. This may result in an economic loss to the local economy. The possibility also exists that portions of the private land holdings of the ranch could be subdivided out in order to maintain the operation. This could indirectly have a negative impact to the wildlife populations that would use these private lands.

If the private and state lands were fenced, then access through these lands to the public lands could be severely restricted with resulting negative impacts to recreational opportunities and the related economics of the region.

m. Threatened, Endangered And Sensitive Species

Canada lynx: There are no Lynx Analysis Units (LAU's) recommended for management on the allotment and lynx are not considered present or using the allotment for anything other than transient use in dispersal. The results of the proposed action would be much improved riparian vegetation conditions on the Federal lands.

As an interconnected action, the permittees would likely fence their private and State leased lands. In addition, the grazing use of those lands would result in no improvement and a likely deterioration of the riparian conditions of those private and State lands.

There would not be any likely measurable impacts in upland conifer or sagebrush habitat conditions. Because of the very low likelihood of presence and the remote potential impacts of

this alternative to lynx habitat, the net direct, indirect and cumulative result would be no effect to

lynx, the same as the proposed action.

Gray wolf: The gray wolf has potential to use habitat on the allotment, as they are a wide-ranging species utilizing big game as principle forage with occasional livestock depredation. Because of improved riparian habitat conditions resulting from this alternative, a slight improvement in the prey base for wolves could be expected on the Federal lands. There would be no potential conflicts between wolves and livestock on the Federal lands.

When the permittees fenced their private and State leased lands, the grazing use of those lands would result in no improvement and a likely deterioration of the riparian conditions. There is a continued potential for predation of livestock on the private and State lands in this alternative.

The direct, indirect and cumulative effects on gray wolves would be a may affect individuals without jeopardizing the continued existence of their population and is not materially different than the effects of the proposed action.

Northern bald eagle: No construction or other such activity is proposed or anticipated within one mile of the existing nest along the east side of the allotment. Improved riparian conditions from this alternative could improve the summer and winter prey base for bald eagle on Federal lands in the allotment but the effect would not be measurable.

As mentioned previously, with the permittees fencing their private and State leased lands, improvements in riparian condition would likely only occur on the Federal lands.

Fence maintenance on the boundary fence which is within 1 mile of the nest would continue to occur to prevent private land livestock from trespassing on the Federal land. However, this has been ongoing for several decades as has traffic on the adjacent Smithsfork road (State highway 232) indicating the nesting pair has acclimated to this activity through the years. The net direct, indirect and cumulative results of the alternative may affect northern bald eagle individuals but would not adversely affect the continued existence of their population and is not greatly different from the affects of the proposed action.

Grizzly Bear: There is no occupied habitat on the allotment or anywhere within the Kemmerer Field Office area. There would be no changes to coniferous forest habitat or any native food sources as a result of this alternative. It is unlikely that grizzly bear will ever occupy habitat on the Smithsfork allotment although it could be an occasional migrant sometime in the future. As a result there would be no direct, indirect or cumulative effect to grizzly bear from implementation of this alternative.

Black-footed ferret: The black-footed ferret is dependent upon prairie dogs for ninety percent of their diet, but no prairie dog colonies (black-footed ferret habitat) are known or suspected to occur on the allotment. In addition, the effects of livestock grazing generally favor prairie dogs and no specific habitat modifying projects are proposed by this alternative. The net direct, indirect and cumulative result is no effect to the black-footed ferret.

Ute ladies'-tresses: This alternative would improve riparian conditions which could potentially improve Ute ladies'-tresses habitat on the Federal lands. There would be no risk of livestock grazing individual plants on the Federal land. However, Ute ladies'-tresses have been surveyed for and were not found in this area, therefore there would be no effect to this species.

As mentioned previously, when the permittees fenced their private and State leased lands, improvements in riparian condition would likely only occur on the Federal lands. If this species were present it is possible that livestock could graze individual plants with a resulting negative effect, but since the species is not present the direct, indirect and cumulative net result would still be a no effect.

No other federally listed species or their habitat are present or would potentially be affected in this

area.

Mountain plover: No suitable mountain plover habitat has been found on the allotment at this time. Grazing is not considered to have negative impacts to mountain plover or its habitat. This alternative would have no direct, indirect or cumulative impact on mountain plover and would not contribute to a need to list the species under the ESA.

Greater Sage Grouse: This alternative would result in improved riparian conditions, brood rearing habitat and complete protection of wintering habitat on the Federal land. The existing interior fencing needed to control the Smithsfork livestock could be removed but all boundary fencing would be retained to prevent livestock trespass from the adjacent lands. Herding activity within nesting habitat between April 1 and July 15 would not occur on the Federal land but may intensify on the private and State lands. Because the direct affects of this alternative are limited to the Federal lands, the net direct results on sage grouse may impact individuals but would not impact populations and would not contribute to a need to list the species under the ESA.

Fifty miles of additional fencing would likely be constructed around the private and State leased lands which would negatively impact sage grouse movement through impact with the fences while in flight. There also would be a potential for increased use on the upland portions of these fenced lands which would reduce the suitability for nesting and wintering habitat. The likelihood of livestock forage improvement projects on the private and State lands that would remove nesting and wintering habitat would be increase.

As a result, because of the amount of private and State lands that could be fenced and the potential for habitat loss through livestock forage treatments, the indirect effects of the interconnected negative impacts of this alternative on sage grouse could be substantially greater than the proposed action. The net direct, indirect and cumulative result of this alternative on sage grouse may impact individuals and populations and could contribute to a need to list the species under the ESA.

Pigmy Rabbit: This alternative would improve habitat conditions throughout the Federal portion of the allotment and would benefit the pigmy rabbit. The direct net result is this alternative may impact individual pigmy rabbits but not is likely adversely impact populations or contribute to a need to list the species under the ESA. The direct impacts of this alternative are not substantially different than the proposed action with respect to pigmy rabbits.

As mentioned previously, with the likely fencing of private and State leased lands, improvements in riparian condition and the adjacent areas would likely not occur on those lands. Much of the riparian habitat and associated adjacent deep soil areas capable of producing pigmy rabbit habitat are on the private and State lands.

As a result, the direct, indirect and cumulative effects of this alternative on pigmy rabbit would be greater than the proposed action. It could elevate effects to a may impact individual pigmy rabbits and may be likely adversely impact populations and could contribute to a need to list the species under the ESA. If increased fencing occurred, this alternative would have negative impacts to the pigmy rabbit compared to the proposed action.

Long-eared myotis: Long-eared myotis is a cave and mine dwelling bat that forages in coniferous and deciduous forest habitats. These habitats would not be altered as a result of implementing this alternative. The net direct, indirect and cumulative result of this alternative would be no impact on individuals or populations of this species and would not contribute to a need to list the species under the ESA.

Idaho pocket gopher: Idaho pocket gopher has potential to occur on the allotment associated with shallow stony soils. No surveys for this species have been conducted, but it is assumed to be present where correct conditions occur on the allotment. This alternative would not alter the suitability of the potential habitat on the allotment and would have no direct, indirect or

cumulative impact on the species and would not contribute to a need to list the species under the ESA.

Northern goshawk: Northern goshawk as potential to occur on the allotment associated with coniferous forest habitats and is assumed to be present in the western and northern portions of the allotment. This alternative would not alter the suitability of the potential habitat on the allotment and would have no direct, indirect or cumulative impact on the species and would not contribute to a need to list the species under the ESA.

Ferruginous hawk: The ferruginous hawk has potential to occur associated with open country habitats but has not been found on the allotment. No activities, improvements or changes that would affect habitat suitability are anticipated from this alternative. This alternative would have no direct, indirect or cumulative impact on the species and would not contribute to a need to list the species under the ESA.

Burrowing owl: The burrowing owl has a low potential to occur on the allotment. It is associated with animal burrows in open shrub habitat, especially prairie dog colonies. These conditions have not been observed but nesting in more isolated burrows is possible. No activities, improvements or changes that would affect habitat suitability are anticipated from this alternative. This alternative would have no direct, indirect or cumulative impact on the species and would not contribute to a need to list the species under the ESA.

Sagebrush Obligate Species: These species are all basin-prairie shrub and/or mountain-foothill shrub habitat obligate species. These upland shrub habitats will remain and likely increase on the Federal lands.

With the likelihood that the private and State leased lands would be fenced, improvements in riparian condition and the adjacent areas would likely not occur on those lands. Much of the associated adjacent deep soil areas capable of producing high quality mature sagebrush are on the private and State lands. The likelihood of livestock forage improvement projects on the private and State lands that would remove sagebrush habitat would increase.

As a result, the direct, indirect and cumulative effects of this alternative on sagebrush obligate species would be greater than the proposed action. It would likely impact individuals and is likely to adversely impact populations and could contribute to a need to list these species under the ESA. With the increased fencing, this alternative would have negative impacts to these species compared to the proposed action.

g. Vegetation

The vegetative community would only be grazed by the native wildlife species. The vigor of plant species on the allotment could increase. Total vegetative production could increase without livestock grazing. The operator could fence off private and state lands within the allotments and use these lands for grazing. This could result in patchwork overuse on the private and state lands and reduced plant vigor in these areas.

h. Water Quality

Without livestock on the allotments riparian vegetation should have less grazing use. This in turn could increase riparian vegetation quantity and health and could enhance water quality. The operator could fence off private and state lands within the allotments and use these lands for grazing. This could result in patchwork overuse on the riparian areas within private and state lands. Overuse on these areas could have a resultant detrimental impact on the water quality throughout the allotment. Overuse impacts on the state and private lands could negatively impact downstream water quality.

i. Water Resources/Wetland/Riparian

Without livestock on the allotments riparian vegetation should have less grazing use. This could increase riparian vegetation quantity and vigor. The operator could fence off private and state lands within the allotments and use these lands for grazing. There could be an impact to the public land riparian portion of the streams and water quality if the non-federal lands were improperly managed. The intermingled nature of the private and state lands could cause impacts on the public lands since considerable acres of riparian area exist on non-federal lands and poor riparian conditions on non-federal lands would influence the federal lands.

This could have an indirect effect on the brood rearing habitat for sage grouse. There would be a positive effect if riparian areas throughout the allotment are maintained or improved, negative if private and state riparian becomes degraded.

j. Wildlife

Mule deer and elk: This alternative would improve forage and cover conditions across the Federal lands in the allotment. With the eventual increase in willow and other hardwoods in the riparian areas; cover, fawning and calving habitat will improve through time. With all forage remaining, wintering conditions for deer and elk would improve. The existing interior fencing needed to control the Smithsfork livestock could be removed but all boundary fencing would be retained to prevent livestock trespass from the adjacent lands. This would reduce the impact of fences on deer and elk movement and the associated mortality from the federally controlled fences.

The direct result of this alternative is an improvement in year around conditions, with a potential for a limited increase in deer and elk on Federal land within the allotment. These affects would be better than the proposed action for the Federal lands

With the likely fencing (about 50 miles) of the private and State leased lands to reduce the impact of the loss of the federal, improvements in riparian condition and the benefits to deer and elk year around, would likely only occur on the Federal lands. There also would be a potential for increased use on the upland portions of these fenced lands which would reduce the suitability for wintering deer and elk. These additional fences would not have to be built to big game friendly specifications and would have a negative impact on deer movement and would increase fence caused mortality in spring, summer and fall. Elk movement would be somewhat affected and there would be an increased risk of fence caused mortality with calf elk. These elk conflicts would mostly occur in late fall, winter and early spring as elk move into and out of the area. Elk damage to the private and State fences could increase conflicts with unauthorized livestock trespass on Federal lands. To maximize the forage production for livestock, it is likely that extensive forage enhancement projects (shrub eradication) would be implemented on the private and State leased lands. This would further reduce their suitability for deer and elk. The net direct, indirect and cumulative affects of this alternative on deer and elk are substantially worse than the proposed action.

Moose: Improvements in the riparian communities would provide additional forage for moose through the additional willows and other shrubs on all Federal land in the allotment. With the eventual increase in willow and other hardwoods in the riparian areas; cover and foraging habitat will improve through time. With all forage remaining, wintering conditions for moose would improve on those lands. The existing interior fencing needed to control the Smithsfork livestock could be removed but all boundary fencing would be retained to prevent livestock trespass from the adjacent lands. This would reduce the impact of fences on moose movement and potential associated mortality from the federally controlled fences.

With the likely fencing (about 50 miles) of the private and State leased lands to reduce the impact

of the loss of the federal, improvements in riparian condition and the benefits to moose, would likely only occur on the Federal lands. There also would be a potential for increased use on the upland portions of these fenced lands which would reduce the suitability for wintering moose. These additional fences would not have to be built to big game friendly specifications and could have a negative impact on moose movement and could increase fence caused mortality throughout the year. To maximize the forage production for livestock, it is likely that extensive forage enhancement projects (shrub eradication) would be implemented on the private and State leased lands. Since the majority of the upland areas of the private and State lands are not highly suitable moose habitat during any portion of the year, the reduction in their suitability for moose would be limited. The net direct, indirect and cumulative affects of this alternative on moose are worse for moose than the proposed action.

Pronghorn Antelope: This alternative would improve forage conditions across the Federal lands in the allotment. The existing interior fencing needed to control the Smithsfork livestock could be removed but all boundary fencing would be retained to prevent livestock trespass from the adjacent lands. This would reduce the impact of fences on antelope movement and the associated mortality from the federally controlled fences.

The direct result of this alternative is an improvement in antelope habitat on the Federal land which would be greater than the proposed action.

With the likely fencing of the private and State leased lands to reduce the impact of the loss of the federal, improvements in antelope habitat would likely only occur on the Federal lands. There also would be a potential for increased use on the upland portions of these fenced lands which would reduce the suitability for antelope. These additional fences would likely not be built to antelope friendly specifications and would have a negative impact on antelope movement and would increase fence caused mortality in spring, summer and fall. To maximize the forage production for livestock, it is likely that extensive forage enhancement projects (shrub eradication) would be implemented on the private and State leased lands. This would further reduce their suitability for antelope. The net direct, indirect and cumulative affects of this alternative on antelope are substantially worse than the proposed action.

Black bear: Improvements in riparian conditions, especially in the Raymond Canyon area are likely to improve conditions for black bear. Because of the very limited conifer habitat and generally very steep terrain in much of the otherwise suitable habitat, population levels are not very high and are not expected to change much as a result of implementing this alternative.

Mountain lion: Improvements in riparian conditions, especially in the Raymond Canyon area will improve conditions for mule deer and elk and other smaller potential prey species. The result would be an improvement in mountain lion habitat, but population levels are not expected to change much as a result of implementing this alternative.

Grouse: Riparian conditions will improve throughout the Federal portions of the allotment with more willow and other shrubs. This will improve the quantity and quality of ruffed grouse habitat. Blue grouse occupy the timbered portions and immediately adjacent open areas of the allotment. These habitats will be little changed as a result of this alternative. The net direct result will likely be a measurable increase in ruffed grouse populations and no change in blue grouse numbers and would be very similar to the proposed action on the Federal lands.

With the likely fencing of the private and State leased lands, improvements in riparian condition would likely only occur on the Federal lands. While most of the lands potentially affected by such fences are on the south end of the allotment, away from the higher potential grouse areas, some loss in ruffed grouse habitat quality on the fenced lands could occur. The net direct, indirect and cumulative affect of this alternative could be slightly poorer conditions for ruffed grouse than the proposed action. There would be little difference for blue grouse.

Raptors: With no livestock use on the Federal land, grass, forb, and shrub densities will increase which will improve the quantity and quality of habitat for the small mammals and birds that make up the majority of these raptors prey base. Therefore, the quality or quantity of raptor habitat as a result of implementing this alternative would improve on those lands. The net direct benefit to raptors would be slightly better than the proposed action.

With the private and State land fencing, the improvement in prey habitat conditions would likely only occur on the Federal lands. There also would be a potential for increased use on the upland portions of these fenced lands which would reduce the suitability for the prey species. To maximize the forage production for livestock, it is likely that extensive forage enhancement projects (shrub eradication) would be implemented on the private and State leased lands. This would further reduce their suitability for the raptor prey species. The net direct, indirect and cumulative affect of this alternative are much poorer for raptors than the proposed action.

k. Wilderness Values

Wilderness values could be enhanced without grazing occurring in the WSA.

IV.E.2. MITIGATION AND MONITORING REQUIREMENTS

Monitoring requirements would continue but would have to be increased dramatically in order to prevent unauthorized grazing use of the public lands.

CONSULTATION AND COORDINATION, PERSONS AND AGENCIES CONSULTED

- | | | | |
|----|--|---------------------------------|----|
| 1. | Ed Feeley | BLM Range Management Specialist | ef |
| 2. | Dale Wondercheck | BLM Wildlife Biologist | dw |
| 3. | Ed Jess | BLM Archeologist | ej |
| 4. | Carl Bezanson | BLM Invasive Species | cb |
| 5. | Marion Burgin | BLM Natural Resource Specialist | mb |
| 6. | Michele Easley | BLM, NEPA | me |
| 7. | Wally Mierzejewski | BLM Recreation & WSA | wm |
| 8. | Smithsfork Project Technical Review Team | | |
| | Arlan Hiner, BLM | | |
| | Ed Feeley, BLM | | |
| | Dale Wondercheck, BLM | | |
| | Evan Pope, permittee, Smithsfork Grazing Association | | |
| | Bart Argyle, permittee, Smithsfork Grazing Association | | |
| 8. | Smithsfork CRM Steering Committee | | |
| | Mary Jo Rugwell, BLM | | |
| | Fred Roberts, permittee | | |
| | Evan Pope, permittee | | |
| | Kathy Buckner | | |
| | Kathy Davison, Lincoln County Commissioners | | |
| | Allen Harrison, Bear lake Regional Commission | | |
| | Dee Wilde | | |